THE

AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of Man.—*Washington.*

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A. B. Allen, Editor. Saxton & Miles, Publishers, 205 Broadway

DOWNING'S HIGHLAND NURSERIES.

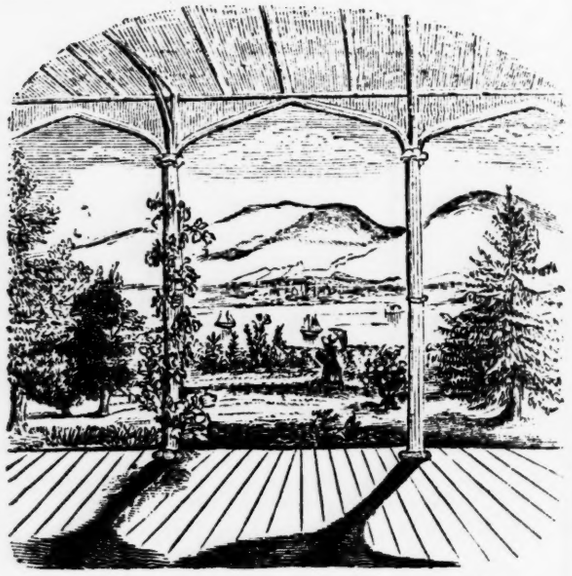
These celebrated nurseries were founded about the year 1803, by the late Mr. Downing, and at his demise was inherited by his sons, Messrs. C., and A. J. Downing, the present owners and occupants, who were bred to their business, and have literally grown up among their own plants, and shrubs, and trees. It comprises about 30 acres, and is beautifully situated on the right bank of the Hudson, just north of Newburg, on a natural terrace gently sloping to within a short distance of the water's edge. The soil, generally, is a strong loam, varying, occasionally, to gravel and sand, and, as well as the fine exposure, is extremely well adapted to the purpose for which it is occupied. We have had great pleasure in repeatedly visiting these superior nurseries, but in our description of them must be brief, confining ourselves to those things mostly which we have not spoken of elsewhere.

The residence of Mr. A. J. Downing is first approached, and is a handsome Gothic villa in the Tudor style, surrounded by well-kept and very tastefully-arranged grounds; the lawn, the flowers, the shrubbery, and trees, combining ornament with utility.

Mr. Downing says he can not recommend the introduction into this country of English evergreen shrubs, such as the common hollies, Portugal laurels, bays, &c., &c.; north of Philadelphia our climate, like that of Germany, being too cold for them. But for all the fruits of temperate climates, the gooseberry perhaps excepted, our climate is much superior to that of England; consequently, many varieties of pears, cherries, peaches, &c., which even on a wall there are somewhat doubtful in arriving at maturity, are exceedingly good under our sunnier skies, and in our dry soils as open standards, and requiring little care. As an example, the Bartlett pear, which in England is frequently watery, and is ranked in the last edition of the London Catalogue as second rate, he has found one of the finest fruits here. This shows that we must not take the English writers as infallible guides for even so small a matter as the flavor of a well known pear. The belle de choisey cherry he has also proved a valuable sort, the fruit being exceedingly luscious. He also pointed out to us a new seedling plum, called Downing's emerald drop, and another called Roe's autumn gage, both valuable varieties, which should find their place in every garden.

The ornamental trees embrace a great variety,

and among these we found the Kentucky coffee-tree, with its double pinnate leaves of large size, and handsome panicles of white flowers; the sea-buckthorn, (*hippophæ,*) with its pale silver leaves; the New Castle, and Washington thorn, which make superior hedges; the western varieties of the horse chestnut, trees little known among us, and deserving universal attention; Madeira-nut trees, from nuts grown in the nursery; superb specimens of the magnolia conspicua; the buffalo berry, standing in pairs, and sparkling with its rich clusters of scarlet fruit; the elm of the southern states, (*ulmus alata,*) of very rapid growth, the branches of which are winged with cork somewhat like the cork-oak; and a beautiful evergreen hedge, making a perfect screen at all seasons, 18 feet high, of the American arbor vitæ, (*thuya occidentalis,*) which is indigenous to the neighborhood, and superior to any other in the country, forming naturally a handsome cone-like tree, clothed from the ground upward, and resembling at a little distance an oriental cypress.



View from Mr. Downing's.—(Fig. 20.)

The view from these gardens of the river and surrounding country is grand, varied, and beautiful to an eminent degree. We give a rough sketch of it, standing in the piazza of Mr. Downing's villa; but neither pen nor pencil can describe the sublimity of the Beacon hills, with their frowning precipices, rising abruptly from the opposite bank of the Hudson to a height of 1,500 feet—the wild ranges of the Highlands, with West Point below—the beautiful picturesque country dotted with villas above, and the various sail craft dancing along the sparkling waters.

Mr. Downing is well known as the author of Designs for Cottage Residences, and a treatise on Landscape Gardening and Rural Architecture; two most excellent works, which have had a large sale, and been the means of greatly improving the taste of our people in these matters. He has another work now in press, the Fruits and Fruit-trees of America, which we trust will soon be out. We think it will be one of the most valuable publications ever issued on this subject.

The residence of Mr. Charles Downing is about half a mile above, and near the river; it is a very neat and tasteful one, and here are grown all the *wholesale* sorts of fruit-trees. They are kept in the best manner, and everything so classed and arranged as to prevent mistakes in taking up for sales. Mr. C. Downing showed us a superior kind of rhubarb, which is larger even than the celebrated Victoria. It comes forward sooner, and continues longer than any other variety, and is remarkable for its tender, succulent quality. We also saw the Spanish tobacco growing here. It attains a great height, and produces a beautiful flower.

Mr. Downing makes use of considerable marl and muck in his nursery-grounds, and prefers them mixed with stable manure to the latter alone. Muck and marl cost 50 cents per load of 30 bushels, delivered at the nursery. After being dug, the muck is allowed to lie six months in heaps, it is then taken and mixed with stable manure, one part of the former to two of the latter, covering the whole heap over two inches deep with dried muck. After standing six to eight weeks, the heap is turned and then covered again with muck as before. At the end of the same period it is again turned and well mixed. At this time it is about half manure and half muck, and will be fit for use in a month's time after this second turning.

GUANO MANURE.

Since Mr. Teschemacher's valuable discovery, (an account of which appeared page 24 of our January No.,) that corn grown by the application of guano contains 50 per cent. more of phosphates in it than that raised on the same land without guano, and that its product may be doubled on a poor soil by the use of a few dollars' worth of this powerful fertilizer per acre, considerable attention has been excited in regard to it by the farmers of this vicinity, and we have been called upon for further information as to its history and use. This has been obligingly furnished us by Mr. Bartlett of this city, who resided some time in Peru, where

the article abounds in the largest quantity, and in its purest state.

Guano is found in strata from 1 foot to 60 feet deep, on most of the headlands and islands all along the Peruvian coast, from five degrees to twenty-five degrees south latitude, a distance of about 1,200 miles, and exists in such unbounded quantities, that it will require ages to transport it away. It is without doubt the pure excrements of sea-fowl, which harbor in this region in such immense flocks as to literally darken the air in their flight. It has a strong pungent smell, making it, frequently, excessively disagreeable to approach within 2 or 3 miles of its deposites. The Spaniards of South America have used it as a manure for more than 300 years, particularly on their crops of maize; and the Peruvian Indians had done the same before them from time immemorial. The corn in Peru is first allowed to get up as high as 12 to 15 inches, and then about half a handful (say 3 ounces) is applied to each hill by scattering it round the stalks, and mixing it up well with the soil. About the same quantity is again used just before the corn commences forming the ear, and as it never rains in Peru, the hills are irrigated within 24 hours after each application of the guano. Land in many parts of Peru would yield little without guano; but with it the products are very abundant. Mr. Bartlett adds, that the corn grown there, is the largest and finest he has ever seen in any country. G. G. Howland, Esq., of this city, applied it to strawberry and melon-vines last year, in his garden at his summer residence at Flushing, with the best effect.

A company has purchased the exclusive right of exportation of guano from the coast of Peru, of the government there, having paid for the same about $1,000,000. They have exported large quantities to England, of which 15 to 20,000 tons still remain in Liverpool alone, unsold. Our last accounts quote it at £9 to £10 per ton. At this price, expenses of transportation, &c., together with the United States duty of 20 per cent., it would come too high here for general use among our farmers. If our government would abolish the duty, and it could be had at a low rate of the Peruvian company, and be brought directly to our own ports, it might be afforded at such a price as we think would ensure its use in considerable quantities on the Atlantic borders. We hope that some of our enterprising shipping merchants will endeavor to accomplish so desirable an object as the cheap importation of it would prove to the country.

Guano varies considerably in analysis, for there are three kinds in Peru. The white is considered the most valuable, as being the freshest and purest. We have seen at least a dozen tables of analysis of it, but quote those only of Bertels and Völckel.

	BERTELS. Parts.	VÖLCKEL. Parts.
Urate of Ammonia	32	90
Oxalate of Ammonia	134	106
Oxalate of Lime	164	70
Phosphate of Ammonia	64	60
Phosphate of Ammonia and Magnesia	42	26
Sulphate of Potash	42	55
Sulphate of Soda	11	38
Muriate of Ammonia	65	42
Phosphate of Lime	100	143
Sand and Clay	—	47
Phosphate of Soda	53	—
Alumina	1	—
Residue (insoluble in acids)	58	—
Waxy and Resinous matters	6	—
Common Salt	1	—
Organic matter, traces of salts of iron and water	—	323
Organic matter, free Ammonia, &c., water	227	—
	1000	1000

Johnstone found one sample to contain 303 parts out of 1,000, of common salt, and another sample 114 parts.

An analysis in Liverpool, furnished us by Mr. Howland, gives

Lythic acid	15 per cent.
Bone dust	30 "
Ammonia	15 "
Organic matter	36½ "
Sundries	3½ "
	100 Parts.

The English periodicals have been teeming with accounts of experiments with guano for the past five years; but as their climate and course of cropping are so entirely different from our own, we do not think it advisable to notice them further than by saying, that when properly applied in an unadulterated state, the results are highly satisfactory, and prove it superior to most other manures, and we have no doubt the same would follow in this country, particularly on poor soils. On rich land, or such as has been highly manured, the application of guano would be of little benefit. It suits alike, grass, grain, root crops, flowers, and shrubs; and owing to its great condensation of fertilizing substances in a small bulk, it is particularly valuable and convenient in the conservatory and garden.

Mr. Bartlett has been so obliging as to send us a bag of guano recently imported, and we shall take pleasure in furnishing any of our friends with

a few pounds of it, who may be desirous of making experiments. It is so powerful a manure that it must be used in very moderate quantity, say from 100 to 200 lbs. per acre, otherwise it will kill the crop to which it is applied. We would recommend mixing it under cover from rain in thin layers of earth, and after it had lain a short time, toss over the compost pretty minutely, and then apply it to the crops.

DEATH OF MR. H. D. GROVE.

We learn with deep regret of the death of this estimable man, on the 20th of February, at his residence at Hoosick. Mr. Grove was born in Germany, and we believe, regularly educated as a shepherd among the celebrated fine-woolled flocks of Saxony. We understand that he first came to this country in 1824, when, disgusted with the numerous importations into the United States of spurious Saxon sheep, which raged for several succeeding years, he determined upon obtaining a good flock of the genuine breed. For this purpose he returned to Saxony in 1826, and in June, 1827, arrived in this city with 115 pure Saxon sheep, selected by himself, from the celebrated flock of Machern, and settled first at Shaftsbury, and afterward at Hoosick, with a view of breeding them. In 1828, he received direct from Saxony 80 more sheep of the Electoral breed, which, together with the 115, we believe are the only Saxons to be depended upon ever imported into this country. These Mr. Grove has bred with great care; and they are highly esteemed for their soft, fine, silky fleeces wherever known; and his wool has ever brought a higher price than any other raised in America. Our readers will obtain a good knowledge of the merits of these sheep by reference to Mr. Grove's articles on this subject, contributed for the 1st and 2d Volumes of this paper.

Mr. Grove married in this country, and has left an interesting family to mourn his untimely death. He was a pleasant, intelligent man, full of wit and humor; a thorough practical farmer, and unquestionably the best flock-master in the United States. He is a great loss to the country; and to his family and friends, we tender our sympathies for their sudden and unexpected bereavement.

Seeds for Distribution.—We have received from the Hon. H. L. Ellsworth, Commissioner of Patents at Washington, a package of twenty-three different kinds of seeds, which we have distributed among our friends for experiment. By his persevering attentions to agriculture, Mr. Ellsworth is doing a great good to the nation, and we hope he will be seconded in his praiseworthy efforts by all who have the interest of this important branch of industry at heart.

☞ Office Hours.—Owing to his avocations elsewhere, the editor of this paper will more usually be found at his office from 12 o'clock at noon, till 2 P. M., at which time he will be pleased to see all who may be desirous of favoring him with a call.

New York Farmers' Club.—This club held its regular meetings on the first and second Tuesdays of last month, and were unusually interesting and important. It is frequently asked of us, then why not give a fuller report of them? The reasons are: First, that these, with the accompanying documents, would nearly fill our paper each month, to the exclusion of everything else. Second, they immediately get into the *daily* papers, and are copied over the whole country before we go to press, ours being a *monthly* publication, so that when these reports appear in it, they are rather *stale* news to the public. Third, frequently what is of most importance is promised us by the speaker in a *more condensed* form, or nearly the same matter has previously appeared under some head in our pages; it would, therefore, be unfair to our readers to be continually publishing repetitions. Fourth, we have now constantly on hand so much correspondence, that in order to make room for it, we are monthly obliged to condense and cut down the communications; and when gentlemen take the pains to write us from abroad, and distant parts of the country, we think we are bound to give them the preference in our columns, which we shall always do. It is for this reason we have not yet published the list of premiums of the New York State Agricultural Society, nor any of the proceedings of its Monthly Meetings. All these, however, we shall give next month, and any new and important fact reported in the State Society meetings; also those of the Farmers' Club, and indeed at any other assembly in North America. It must be recollected that our periodical is *general*, and not *local*, in its scope and spirit; that its subscribers extend from Newfoundland to Texas, including several of the West India Islands; and that we are bound to make up such a paper as is *generally* readable. The proceedings of the New York Farmers' Club will be found in the Brother Jonathan of this city; those of the New York State Agricultural Society, in the Albany Argus, and Evening Journal.

Subsoil and other Plows.—We have received from the manufacturers, Messrs. Ruggles, Nourse, & Mason, of Worcester, Mass., samples of their Subsoil and Improved Eagle Plows, and shall be pleased to have our friends call and look at them, and take orders. They are highly finished and complete, and as perfect specimens of the plow kind as we have ever seen. Prices vary from $6 to $16, according to size and fixtures. See advertisement.

Stone-Lime, Oyster-Shell Lime, Plaster of Paris.—For the accommodation of our friends, we have taken the agency for the purchase of these fertilizing materials. We would especially recommend the use of plaster to our southern friends. A single barrel costing $1,25 to $1,50, is ample for an acre.

THE SILK CULTURE.

You kindly asked me to give you a sketch of some late travels undertaken for purposes connected with the silk business. I find that I can not do justice to my notes without making an article too long for your crowded paper. I therefore select two or three things, giving more full statements to the public through other channels.

1. The manufacture of silk in the eastern states has greatly increased within one or two years. In that time, and under the fostering influence of our late tariff, several new factories have been started, and several old ones that were connected with, and prostrated by the mulberry speculation of 1838 and '39, have been revived, and are now going prosperously forward. All these establishments are confined chiefly to sewings, twist, cords, gimps, and other trimmings, and find a ready and profitable sale for their goods. They consume severally from 20 to 200 pounds raw-silk weekly. Their chief dependance is upon foreign stock, although they purchase all the American silk properly reeled they can get, and pay higher for it, because it is better. Beyond doubt there is now worked up weekly in New England, New York, and New Jersey, two or three times the quantity of raw-silk that was consumed one year ago.

2. West of the mountains, the almost entire attention of manufacturers has been turned to *weaving*. I brought home with me some *seventy* different samples of silk goods, from the richest figured velvet, down to the plain pongee. (*a*) These establishments are in Western Pennsylvania, Ohio, Indiana, and Tennessee, and none of them use a pound of foreign stock. On the other hand, the increase of the raw material in that quarter has been such, for the past two or three years, that the interests of the silk business now demand more manufacturing capital, or regular arrangements for sending their surplus raw-silk east. They find a ready and profitable sale for their goods as fast as made. I could not learn that any of these establishments had failed, or had been suspended, though some of them have suffered for the want of more capital. The two leading establishments at the west, are Mr. Rapp's at Economy, Pa., and Mr. Gill's, Mount Pleasant, Jefferson county, Ohio, each employing from 40 to 50 hands. I found Mr. Gill putting up a new building 50 by 20 feet, three stories, to be filled with power-looms for weaving pongees.

3. *Feeding Worms* at the west, for the past year or two, has been generally in *sheds*, *tents*, or other *open* buildings, in a perfectly natural state of the atmosphere. Hundreds of pounds of excellent silk have been made in this way. The report of our Silk Convention in New York, in October, is full of facts relating to this important point, yet at Economy they have fed for ten to twelve years, and use enclosed buildings and are *always successful*. This year they fed 22 or 23 crops, and made between 500 and 600 lbs. reeled silk of first quality. I went through their buildings, and am satisfied they are no *better* ventilated than hundreds of others, where disease and death have so often reigned triumphant among the worms. The grand secret of their success is that they *clean their worms every day*. (*b*)

Growing silk is rapidly extending at the west, and southwest. In Tennessee the crop of 1840 amounted to 1200 pounds cocoons. This year to 20,000 or 25,000 pounds. Several large establishments for feeding are under way. Mr. J. O'Hara, near Pittsburg, has 6 or 7 acres of trees, and is preparing to stock 20 more in the spring. I spent a very pleasant evening with Mr. George Sanders, at his silk-farm, near Wheeling, Va. This gentleman has been personally connected with this business in France and Italy. He has 8 or 9 acres of trees, and is preparing to stock 50 more, and to carry out the most approved artifical systems of Europe on a large scale. He purchased the place in October.

Mr. S. agrees fully in the opinion so often reiterated by silk-growers, that we have much more to dread from *heat* than from *cold*, especially *hot*, *sultry*, *confined* weather. This is the great danger. He is therefore preparing to guard against it. In his one-story cocoonery, 132 by 35 feet, full of doors, windows, and scuttles, he is putting up *twelve chimneys*, designed chiefly for *flash-fires*, made of brush, straw, leaves, or other light materials. He says that in this way he can *entirely* change the air in the room in a few minutes. The principles certainly are perfectly philosophical. It was stated in the papers of the day, that the heat generated by the great fire in New York was so intense as to cause the wind to come blowing in upon the fire from all points of the compass. I know of no cocoonery in the country built in this way, or with *artificial fans*, or in any way so constructed as effectually to secure the great point here aimed at—changing the air at pleasure. We have all provided means for *warming* the room when cold, but none for this. We have guarded against the *lesser* peril, but have left the *greater* one unprovided for. This, together with carelessness and negligence in feeding and cleaning, fully accounts for all the sad disasters in large feeding-establishments. We trust that our intelligent friend will fully demonstrate the feasibility of his plan. It has been already demonstrated that worms can be fed with entire safety in sheds and tents, and other *open* shelters. Let it be shown that they can be fed in enclosed buildings, and in large establishments, and it will give an impetus to the business which nothing can resist.

J. R. Barbour.

Oxford, Mass., March 7, 1844.

(*a*) When Mr. Barbour passed through this city he exhibited these patterns to us. They are not only very handsome samples for the kind, but are well dyed, and we think heavier, stronger goods, than similar qualities imported from abroad.

(*b*) The temperature of the rooms night and day is also kept very equable. When we visited this establishment in June, '42, the superintendent informed us that the atmosphere did not vary more than 10 degrees throughout the whole feeding season.

PAULAR MERINOS.—No. III.

In my remarks sent you a few days since, I referred your readers to the *sample* of the covering of the Jewett ram, at your office in New York. In so doing, I had in view more particularly that portion of the public who might not find it convenient to go to Vermont to examine the said ram and the rest of Mr. Jewett's flock. To all such as have it in their power, and feel sufficient interest in the subject, to be willing to travel to Vermont for that purpose, that course would, I presume, be still more satisfactory than an examination of the *samples*, though selected and furnished by Mr. Jewett himself.

In the columns of the Albany Cultivator for October, 1842, there appeared, among other communications, a *ram advertisement*, in the shape of a letter to the editors, from the Rev. Royal A. Avery, of Galway, New York.

This Mr. Avery (in speaking of Mr. Jewett's pictured ram) says, among other things, "This buck is one which Mr. Jewett purchased of my brother-in-law, Alfred Hull, of Wallingford, Vermont. He also at the same time purchased of Mr. Hull *one* Paular ewe, whose first lamb after Mr. Jewett bought her, is, I presume, the buck whose likeness you gave us in the March No. of the Cultivator." Mr. Avery also says at the same time, that his "brother-in-law's flock has probably been kept *as* pure as any flock in Vermont." (This, it strikes me, is not saying *very much* for their *purity* of blood.) He then goes on to say, (I quote his own words, which I suppose are a key that unlocks the true object of his letter,) "Mr. Hull keeps pure Paular bucks constantly for sale; has sold hundreds within the last twelve years, from $8 to $10 per head; which speaks volumes in their favor! They are no humbug." He then says that the figure of Mr. Jewett's buck, which appeared in the Cultivator for August, 1842, is almost a perfect likeness of *his own* stock buck. He at last "winds up" by giving us, (as one might say,) "in a nut-shell," the true "*nub*" or kernel, of the whole matter. "I have sold all the bucks I could raise at $10 per head, at one year old, *except a few yearlings now on hand*, which will all be taken before December next. Have sold several this season already."

I give the foregoing quotation from Mr. Avery, not only as an example of modern, or Paular *advertising*, (in which the Rev. Mr. Avery almost equals Mr. Jewett himself,) but more especially do I quote it, as being one of the "cutest" and most adroit specimens that I have ever met with, of *filching*, or what is sometimes called "taking the wind out of another man's sails." Why it absolutely leaves Mr. Jewett *nothing at all!* It takes away from him the *old* buck and *young* buck, the ewe, lamb, and all, and leaves Mr. J. in the predicament of being a mere *pretender* to the Paular glories; and this, too, after all the fuss and flourish he has made with his ram pictures, Cultivator letters, and all that sort of thing, including the collateral aid of his *disinterested* co-worker and friend Mr. Henry S. Randall, and all the other puffs and paraphernalia of the ram trade, which means and appliances have been so effective in getting up, and giving *value* to the Paular speculation. And now, after Mr. Jewett has borne so large a part of the heat and labor of getting up the Paular scheme, and is just ready to pocket the fruits, this smooth and shrewd Rev. Mr. Avery would fain endeavor to get its advantages all away from him. Verily this Yankee divine is "not slow" in *secular* affairs. It would not be easy to find his match, in smooth and keen shrewdness, among the sons of *this* world, not even among those whose vocations are nominally less sacred, and savor daily of bargains and traffic.

But it is really too bad. He does not do unto Mr. Jewett "as he would be done by." But I must leave them to settle that matter between themselves, merely remarking that Mr. J., so far as I have seen or heard, bears all from Mr. Avery (thus far) with a meek and quiet temper, or perchance deems it best and wisest to take things *coolly*, under a belief that, as some one says, "the better part of valor is *discretion*," and in *this* matter he may perhaps be *wise* in thus keeping quiet. Of course he knows best about that.

It appears then, that Mr. Jewett did *not*, himself, *breed* his pictured ram, the reputation and glory of which, according to Mr. Avery's account, belongs in the *first* place, wholly to *his* "brother Hull," of Wallingford, Vermont, and then *secondly*, by a kind of reflected light, enures to Mr. Avery himself, who not only says *his own* flock are of that *very same sort*, being derived solely from his "brother Hull's," but that *his own* "*stock-buck*" is the very image of the *picture* of the beast which Mr. Jewett got published in the Cultivator!!

Thus it would seem, that in my plain remarks on the Jewett ram, I must have "hit (at the very least) *three* birds with one stone." A great shot! was it not? But there is no knowing how and *where* these long shots will take effect, where there are such family combinations and *ram*-ifications, as in this Paular speculation.

So it seems that the Jewett mongrel ram, which I commented on and exposed through your columns, is not only a specimen of the Jewett Paulars, but of Rev. Mr. Avery's flock! and also of Mr. Avery's "brother Hull's" flock! the two very same flocks which Mr. A. "cracks up" so plausibly and at such a strong rate, in his letter that you have just published for him in the Agriculturist, though not without some sensible notes and comments of *your own*. Of course Mr. Avery's sheep, which he calls pure Paulars can not be of any purer or better blood than his brother Hull's flock, from which he derived them. Though not such a "mixed medley" of different sorts and *shades* of blood as have been picked up and brought together by Mr. Jewett, yet I do not believe for a single moment, that Mr. Hull's sheep *are* Paulars, any more than Mr. Jewett's, nor even that they have any just claims to be considered *pure Merino* of any sort. If they *are* of pure blood, it is a fact susceptible of *proof*, and of being proved beyond a reasonable doubt. In the absence of such proof, or of *any* proof, I have very good reasons, (which, should there be occasion, may hereafter appear,)

for not placing the slightest reliance on the claims put forth by interested parties, in their behalf, so far as *purity of blood* is concerned. They may very likely be good stout, profitable sheep, yielding pretty heavy fleeces. I have at this time nothing to say about them, except only as regards their unfounded pretensions to purity of blood. And here, let me with all due deference inquire, (just by way of suggestion,) whether the right place for Mr. Avery's letter would not have been in your *advertising* department? I say this in the full belief that the whole thing about Paulars, so far from being of public interest, belongs to, or partakes strongly of, the genus "*humbug*;" a fact of which I believe I can furnish you abundant evidence, (if you need it,) for your own private satisfaction. Though on its face purporting to be a letter from Mr. A. "on fine wool sheep," I take it to be, *in fact*, only a regular *puff* of his own and his "brother Hull's" sheep; and though "cunningly devised," yet plainly and evidently designed by him, (after the most approved model of *many* such things, which have from time to time appeared in the Albany Cultivator,) to *assist in selling their rams*. This is, most unquestionably, the "plain English" of it.

But to return to Mr. Jewett. Well, one thing is certain, it is something for Mr. Jewett to be thus publicly relieved of the *discredit* of *breeding* such a beast as that Hull ram of his; I am sure I should think so, if I had been suspected of such a thing as breeding him. But as *he* did not *raise* "the crittur," and (may be) did not *buy* many of that sort, (for his own sake it is devoutly to be *hoped* he did not,) his flock may not be so bad after all, as would naturally be supposed, judging from this coarse and vulgar mongrel ram. If Mr. Jewett was a friend of mine, I would advise him by all means to shoot the ram, or cut his throat, (no matter which,) sooner than *use* him in his flock, any further than he may unfortunately have done already. Indeed I should not like to have any breeding ewes that I valued even *look* at that ram through the fence, for fear that the mere *seeing* him might affect their imaginations so much as to "mark" their offspring with some of his peculiar beauties and excellences, of either *fleece* or countenance.

By the way, I am told that Messrs. Avery and Hull affect to consider Mr. Jewett as imposing on the public, in this matter of saying and advertising as he *has* done, in the Cultivator and elsewhere, that he has for sale and can furnish full blood Paular rams. They are evidently jealous of Mr. J., and seem to consider him as "stealing *their* thunder" in his use of the Paular *name*. I hear that Mr. Avery does not hesitate to say openly, that Mr. Jewett bought of his brother Hull only two or three of their genuine, full blood (spurious?) Paulars. On that *small* capital, they claim that he has presumed to assume and use the magical name of PAULAR, for his *whole* flock, and thus, on the strength of this *very small* "branch from *their* flock of *Simon Pures*," to set himself up extensively in the Paular ram trade, and in that way humbug the public; and that they "would like to see him *exposed*." Now is not that excellent? In my judgment it is really *rich*. Truly when some folks, (that is, *speculators*,) fall out, honest men stand some chance to come by their rights. Now this is just exactly what I have been all along *expecting*. I thought it more than probable that some of these Paular ram speculators and humbuggers "would turn state's evidence" and blow up the whole thing. Here I think we have it, or at least the beginning of it. I have all along considered it a speculation, a mere job.

I wonder if some one who knows would not be willing to inform us *how many* of the genuine full blood Wallingford (or Hull and Avery) Paulars Mr. Jewett *did* actually buy, as a *stock* with which to "set himself up" in the Paular ram business? If it was really but *a few*, say not more than two or three sheep, (as the Rev. Mr. Avery would insinuate,) just as a sprinkling or leaven of the pure and royal blood, with which to *Paularise* (if I may be permitted to coin such a word) or inoculate with the *name* at least, if not with the *blood*, the rest of his large flock, composed of plebeian or chance sheep, selected and bought from the flocks of surrounding farmers, mere "*pick-ups*," and of no certain blood; I say, if this was all, (though I do not of course know what Mr. Jewett would be able to say to all this,) yet I am free to suggest that he (Mr. Jewett) could not possibly do a better thing for his own interest, and for the *reputation* of his flock, than to come out at once like a man, and *own* how *few* he had of them. The *fewer* such sheep, the *better*, I should say. It is surely the wisest and best thing he could now do, and I commend this view of the subject to his most earnest and serious consideration. Depend upon it, Mr. Jewett, if you have, (as I do not doubt is the case,) in the flock you have selected and got together, some good, profitable sheep among them, you can not do a wiser or better thing than to repudiate and cut clear of all connexion with the full blood Wallingford or spurious Paulars. I do not doubt that you have other and *better* materials, out of which to *make* Paulars, than anything you got from Mr. Avery's "brother Hull;" and as to the *name* of Paular, if you have any notion for a *selling* or fancy name, why you can yourself *baptize* them into the Paular family, just as well as Messrs. Hull and Avery could do, albeit you do not happen to be a *clergyman*, as the *latter* claims to be. *Lay* baptism, in such matters, will do just as well as *clerical*. But if you take my advice, you will let Mr Hull, and his brother-in-law, the Rev. Mr. Avery, have and enjoy the reputation and the sole benefit of that Paular ram humbug. I really believe that the thing properly belongs to *them*, and that they *are* (as they *claim* to be) entitled to its fruits. By all means, let them have it. You shall hear from me again before long, on the subject of Paulars, &c.

EXAMINER.

New York, Nov. 25th, 1843.

NOTE.—We hope all who have any desire to reply to Examiner, will have the patience to wait till he gets through with his numbers; they can then do it briefly and in one lump, and thus save us a diffuse controversy.—ED.

ORIGINAL CORRESPONDENCE.

VIRGINIA LANDS.

The interest you have taken in imparting information to persons settling in Virginia, especially those who are leaving Dutchess and other counties of this state, has induced me to communicate such information as I possess toward advancing the objects of the emigrants. It is with pain, however, that I learn of this desertion of the Empire state, which contains within its limits all the capabilities of the seaboard, and may, under a judicious method of cultivation, compete with the favored west. There is a two-fold interest awakened in the breast of Americans in consequence of our political constitution, which I fear will for a long time impoverish one state to enrich another. We are of two nations, natives of a state, but citizens of a union of states; how far the place of our nativity may have claims upon us beyond those of the federal union, must depend upon individual peculiarities; but so long as it can be shown that a precipitate desertion of our fatherland is not called for as a means of improving our finances, it ought to be maturely considered before being entered upon. I have no hesitation in stating, that the New Yorker who leaves this state to better himself in Virginia, will be disappointed in time. But I will not withhold such information as I possess, although it is neither extensive nor valuable.

The richest lands of eastern Virginia are situated along the river courses, and in the tide-water districts to a certain extent. There is, however, an exception to the fertility of the tide-water lands on the south side of the James river, near its embouchure, where there exists large level tracts of sand, which yield indeed fine sweet potatoes, but only when well manured. The sandy deposites stretch to the seacoast, with occasional extensive tracts of marsh-lands and swamps, which are sources of deadly malaria, but become of eminent fertility when properly drained. Upon the north, between the James river and the Rappahanock, lie extensive plains well furnished with *marl*, and although impoverished, still susceptible of great improvement.

But it is upon the great rivers, on their alluvial deposites, that the rich soil of eastern Virginia is found. This does not, however, extend throughout their whole extent. The James river above Richmond to Lynchburg, presents a valley varying from a quarter to two miles in width, containing lands as rich as any in the world. Here immense crops of the finest American wheat, and much tobacco is produced from year to year without apparent exhaustion. But upon the hill-sides which form the flanks of the valley, the case is widely different. The hills rise usually abruptly, or with an inclination of from 10 to 20 degrees. They are therefore very subject to washing, and their cultivation is difficult. Above Richmond they are formed of transition and primary rocks; and although fertile before exhaustion, are not sufficiently improveable for the purposes of our primeval farmers, who look to their crops and forget the soil. The alluvial portions of the district are, however, worth from $50 to $100 per acre, are sought after with avidity, and sell in large tracts.

The secondary formation of eastern Virginia lies between Richmond and Petersburg, and in a band having an inconsiderable width, but which stretches through the state, running to the shores of the Potomac. It presents us with some of the most sterile and unimproveable land of the whole country.

The lands lying west of this strip, and forming nearly half of the counties of Virginia east of the Blue Ridge, are of the transition formation, and contain red clays which are very rich when newly cleared, and improveable for many years. These tracts also present us with white pipe-clays of very little value. The native farmers, however, think much more of the flats upon creeks, and small streams which intersperse the state in every portion of this geological formation. They risk all the chances of freshets, and place the major part of their crops upon them—and not without reason, for however shallow the hill-side soil may be, that of the bottoms is frequently deep and mellow.

In the south, the Roanoke, Stanton, and Dan rivers present the traveller with alluvial bottoms frequently of great extent and fertility. The lands here, which in some tracts rival the formation on James river, are to be obtained at a much more reasonable price—they are indeed further from markets—more subject to inundations, and unprovided with a canal as in that case; but the Roanoke and Stanton are sufficiently deep for small steamboats, and the enterprise of our northern people would introduce them, under which circumstances they would be almost as valuable as James river lands. The upper portions of the Dan are at present but sparsely populated; but the Virginians themselves have turned their attention to that portion of their country. Emigrants would do well to visit that section of the state, especially the county of Pittsylvania.

H. D. X.

FRUIT-TREES.

Amidst the great agricultural improvements of the age, the subject of Horticulture has not been entirely overlooked; but a new impulse seems to have been given to this branch of rural industry. Yet I doubt whether the great mass of the community are aware of the pleasure, nay, I will say the profit to be derived from a good fruit garden, or an orchard of the finest varieties of fruit. Indeed, I question whether one fourth part of our population have ever tasted of a choice pear or cherry. There is as much difference between a good pear and a poor one, or a good cherry and a poor one, as there is between a crab apple and a Spitsenberg or a pippin.

I have recently noticed an article going the round in the newspapers, stating that there is a stately pear-tree near Kinderhook, that has produced the past season five barrels of pears. This no doubt is a valuable tree, and yet I am quite sure that there are hundreds of trees in our country much more productive. As facts are stubborn

things, I therefore am inclined to give a brief statement of the produce of some fruit-trees near me; and I am the more inclined to do this, not only from the fact that the public at large are quite eager to learn about fine fruit, but also to redeem a promise made some time since, that I would occasionally write an article for the pages of the American Agriculturist.

There are three fruit-trees all growing within forty rods of my house, the produce of which the past season has been as follows: An apple-tree from which we gathered over six barrels of very fine Rhode Island greenings. A tree of the orange-pear which produced the past season ten barrels of pears. These pears have frequently sold for $2 per bushel—$40 worth have been sold from this tree in a single season. A tree of the autumn pear, (so called,) from which was gathered the past season over twelve barrels of fruit. These pears generally sell for one dollar the bushel. Perhaps some facts connected with the history of the last-mentioned tree may not be uninteresting.

Some thirty years ago, my father employed one of those travelling itinerant grafting-men to set a few apple grafts for him; when the job was about done, he solicited my father to permit him to set a few pear scions. This was objected to in consequence of the pear being so long coming into bearing; my father making the remark that he never should live to see them bear fruit. But finally, saying, that perhaps some of his children might possibly live to see them bear, he consented to have a few set. They were engrafted on the common thorn cut down below the surface of the ground. They grew vigorously, and the old gentleman lived to enjoy the fruits of his labors. The year previous to his death, (1835,) the tree above mentioned produced 33 bushels of pears. He sold them at $1 per bushel. A tree of the orange-pear engrafted at the same time, has generally yielded about one half as much fruit as the above.

I do not mention the above as anything very extraordinary; for no doubt there are many other trees in our country much more productive than these. Indeed, there are several in this neighborhood nearly as valuable. In several instances I have gathered eighteen bushels of the Rhode Island greenings from a single tree. Nearly every one is fully convinced of the pleasure and profit to be derived from cultivating choice fruit, and yet there is a natural disposition to defer it. The thought "I never shall live to see them bear," and the possibility that others may enjoy the fruits of their labors, deters many from doing anything that may benefit posterity. And yet what richer legacy can a parent leave to his child? And what is there that would be more likely to attach a child to the old homestead, than a well-cultivated fruit garden? An acre or two planted with the most choice and select kinds of fruit, in ten or twenty years becomes worth a little fortune.

BENJAMIN HODGE.

Buffalo Nursery, December, 1843.

We regret that in the foregoing communication our friend Col. Hodge did not give us a description of his extensive nursery, which is one of the finest in western New York. He has long been engaged in the business of tree culture in all its varieties; and his ground now comprises more than 100,000 of all kinds of fruit and ornamental trees, besides an extensive collection of shrubs and flowering plants. The extensive demand from the country west of Buffalo, which has sprung up in consequence of the rapid settlement of the great lake regions of Michigan and its adjacent territories, have made that point a great resort for the supply of trees for western farmers. No country in the world perhaps yields finer apples, pears, plums, cherries, and quinces, and peaches, as well as the smaller fruits, than that bordering the great western lakes; and we look forward to no distant day, when their waters, and those of the Erie canal, will teem with the luxuriant products of their orchards, destined for our city, and a foreign market.

We are happy to know that public attention is more directed to this subject than formerly; and while good fruit is so easily and cheaply propagated, no resident on even one acre of ground should rest without planting and cultivating a liberal supply of choice fruit. We are promised in our next, from an experienced nurseryman, a list of the most valuable and popular fruits, with a short description of each for publication.

THE STRAWBERRY.

I HAVE seen a communication signed S. S., in the 2d Volume of your periodical, and as no one has yet ventured a reply, I lay before you the present article, in the confident hope that it will satisfy the doubts of your able and ingenious correspondent. The error which he appears to have fallen into, arises from the rash spirit of generalization, which too often distinguishes writers who have a theory to sustain. This is an age of facts, and one of a practical character; and as I propose to try his communication by this rule, you will be better able to judge who is right. He says: "The strawberry, in its sexual parts, has one property corresponding with the almost entire vegetable kingdom; that is to say, to secure fructification, it has the stamens and pistils (the male and female parts) on the same plant." This I deny. The first authority that I shall offer is to be found in M'Intosh's Practical Gardener, page 368, and is as follows:—

"The Hautboy generally thrives best in light soils, and can scarcely be overdunged, as it is not so likely to be thrown into a superfluity of leaves by manure as some of the others. There are various sorts of this species, all of them esteemed for their fine flavor; one variety has the parts of fructification so perfect, that it bears plentifully, being capable of fecundating itself; while some other varieties are so imperfect, that they contain the

male parts in one flower, and the *female* in another. Still the latter varieties are reckoned the finest flavored fruit. Keen, a successful cultivator of this fruit, observes, that great care is necessary to be taken in selecting young plants of these sorts for making out new plantations; that there be a proper proportion of male plants to the female, not having too many of the former, as they bear no fruit, and are more prone to run into leaves and runners than the others. He considers that the proportion ought to be one male to ten females, and states his reasons for making such a choice. Having been formerly in the habit of selecting female plants alone for his beds, he failed in being able to procure crops; but in 1809, suspecting his error, he obtained some male blossoms, which he placed in a bottle on the bed of female hautboys. In a few days he perceived the fruit near the bottle to swell. On this observation, he procured more male blossoms, and in like manner placed them in bottles in different parts of the beds, removing the bottles to fresh places every morning, and by this means obtained a moderate crop where he had no fruit the preceding year." See Loudon, M'Mahon, and others.

Lindley is the only writer who appears to favor your correspondent's theory, and he admits that there are fruitful and sterile plants, yet what is very extraordinary, he does not give the botanical character of these plants.

I have examined Keen's seedling with great care, upon one set of flowers the stamens and anthers were absent, and the pistils only existed; on the other the stamens and anthers were present without the pistils, and this will be found to be invariably the case with this kind of hautboys; and I will venture to assert, that S. S. may put virgin soil, guano manure, or Bommer's, or any other that he pleases, and he will not produce a perfect strawberry; and for this simple reason, that he can not violate a law of nature, which requires two sexes to produce a species. Besides all this, the male plants are not less distinguishable in their flowers than in their runners; for every practical gardener knows that the runners are always reddish in the male, and greenish in the female.

Again, S. S. says: "Now to call any perfect strawberry plant a *male* or *female plant*, is to assert a fact at variance, the writer believes, though no botanist, with the habits of all other plants; that is to say, there are no intermarriages of plants changing the sexual character of their progeny, and passing them from the description of those like the strawberry, Icosandria polygynia, (males and females on the same plant,) to those like the hemp and palms with male and female on different plants."

Now, if I understand S. S., his argument is, that no monœcius can produce a diœcius plant. Here S. S. is again at fault, for the grape, (*vitis,*) which is pentandria monogynia, does produce a diœcius grape, called the Scuppernong; and the common sweet-scented grape, (*vitis riparia*, or odoratissima of some authors.) This I think knocks his argument into a cocked hat.

The writer again says, that he never saw a wild *he* strawberry. If he will look less after the *shes* and more after the *hes*, he will be gratified; for in this part of the world the *hes* have established a complete monkery, so that not one female is to be found. It is evident then, that a monœcius plant can produce a diœcius, and if it can on the grape, there is no reason that the same result should not be shown on the strawberry. It may be called a sport of nature, but it is one of those means she takes to produce varieties so important to our comfort and welfare.

S. S. has made some important remarks upon the cultivation of fruit well worthy of consideration; and as he appears to be a lover of horticulture, I have deemed it right to direct his attention to an error which has escaped his usual sagacity.

T. R. R.

Long Island, near Huntington, Jan., 1844.

EXPORTATION OF FRUIT.

In my opinion, the importance of growing fruit as an article of export, has been most generally overlooked in this country. It is true the fruit-dealers of Boston have been shipping apples and cranberries to Europe for many years, and of late, apples have been shipped to Calcutta. There is no doubt that quinces and the finest quality of winter pears could be shipped to some parts of Europe with the same success as our other fruits. The business being new in this section of the country, I propose saying something relating to the export of fruit for the benefit of new beginners.

All fruits sent abroad should be of the *very first quality*. The Boston dealers ship their celebrated Baldwin apples. The most valuable variety in this vicinity is the Newtown pippins, as they keep sound and retain their flavor late in the spring, when most other varieties are gone. A distinguished horticulturist of New York, ships his apples to London in the following manner: After being carefully picked, and placed by hand in baskets, they are carried by men and put in an open barn for the purpose of sweating 15 or 20 days. Some are then packed in barrels with perfectly dry sand, some in buckwheat, and others are put in barrels without anything with them. (*a*) They are then taken on a sled, or in the box of a wagon hung with spiral springs, to a boat on the North river, and thence to the vessel which takes them to London. In all these trans-shipments the barrels are never rolled, jolted, or jarred, so that the apples escape bruising, and the consequence is they arrive in London in far better order than they are in general when brought to the New York market.

These precautions in shipping apples agree perfectly with some facts I obtained from Mr. Serrell of the American Institute, formerly engaged as a managing ship-owner in London, connected with the fruit-trade. In drawing charter parties for a vessel to take fresh fruits from Spain and Portugal to London, a special clause is inserted that the boxes of oranges shall be hoisted into the vessel by the takle being attached to each; and that the boxes also are to be stowed on their bottoms, and never on their sides or ends. On landing in London, the same care is taken in hoisting them out of the vessel. The boxes are then placed on the

heads of men known as fruit-porters, and by them carried to the warehouse, where they are examined and assorted, and then sent out in the same manner to the places of consumption. The same precautions are used in taking the oranges from the garden to the shore, from the shore to the lighter, and from the lighter to the vessel.

The Boston fruit-dealers, when shipping cranberries to New Orleans or Europe, assort them by letting them run over a platform slightly inclined. Only the perfect fruit runs over the whole length of the platform, the rotten and bruised fruit lodge going down, and are thrown away. The choice fruit is then put in tight barrels, and, when headed up, filled with water. The fruit will arrive at its destination in perfect order, and has frequently been sold in England and France at $20 per barrel.

B. G. Boswell.

Philadelphia, February, 1844.

(*a*) This last is unquestionably the best method of shipping apples. The barrels should have a few holes bored in each head with an inch and a half-augur, and ought always to be shipped on deck. See Vol. II., page 193. In addition to sand and bran, we have heard of apples being shipped in charcoal, sawdust, cider, and a variety of other substances; but so far as our experience and information extend, they never arrive in so good order as when packed entirely by themselves.

ENGLISH METHOD OF FATTENING CATTLE.

I have been greatly interested in reading your "Tour in England," as contained in the first two volumes of the American Agriculturist. Did your remarks and general detail of English farming operations require confirmation, I, as a practical English farmer, should be exceedingly willing to subscribe to their general correctness. But such, I feel, your readers can not deem necessary, inasmuch as the clear and lucid style in which your interesting Tour is written, as also the absence of any of those tales, surpassing credit, with which modern travellers love to interlard their works, bears sufficiently evident upon itself the impress of reality.

You cleverly remark in one portion of your Tour, that "you are not *particularly* ambitious of becoming the Trollope of English manners," and I congratulate you most heartily in withstanding the temptation of passing severe, or even *just* strictures upon peculiarities, which a traveller will more or less find to belong to every people. However, such indulgence among travel-writers is of course a matter of taste, and allow me to add, I think yours to be good in refraining from such indulgence.

In reading your Tour, it struck me that there was one subject which might with benefit to farmers in this country, be more fully enlarged upon. I allude to the English method of fattening cattle. I do not wish to be understood as believing that the entire system would be applicable to American grazing; but I do believe, after close observation, that some hints may be gathered from our method, which graziers in this country might turn to account; and before making any remarks upon the matter, I will give in as concise a form as possible, the plan I have pursued in England upon my own farm.

My stock is of the Durham breed. It has been my object, when possible, to have my cows calve some time in January or February, and I would never rear any produce for fattening that fell later than the last of February; my reason is, that they would not be ready to make a start with the grass in May, and consequently be a year behind the earlier ones in coming to perfection.

I wean my calves when a fortnight old, (I allude to those intended for grazing,) feeding them on milk, oats, bran, carrots, and, in fact, something of everything that the farm produces, and which they can be made to eat. At this period I consider the calves require the greatest care and most constant attention; and keeping them clean and warm are not the least important requisites. I give them a little food at a time, but feed them six or seven times a day. Almost the only ailment I have found my calves subject to at this age, is scouring; this, if not checked by times, will weaken the animal greatly, and not unlikely cause death. The remedy which I apply is at once simple and efficacious, viz., boiled rice with a small quantity of powdered ginger; administered, if the calves will not drink it, from a bottle. As soon as there is grass and the weather is warm, which is generally with us about the 1st of May, my calves are turned out in the morning and taken up again at night—well littered, with wheat-straw, (barley-straw engenders lice,) and fed with a little corn, &c.* As the weather gets warmer, I allow them to remain out all night, always feeding them night and morning with oil-cake or oats. This treatment continues through the summer. In the October following, they are taken up and yarded for the winter; running in an open yard, with a shed which they use at pleasure, behind the bullocks which are tied up and fattening. In this yard they have the odds and ends of vegetables, which the bullocks will not eat, some rough hay, and 3 lbs. of oil-cake each per day; or sometimes, in its place, a bait of bean-meal.

On or about the 1st of May in the following year, they are turned out to grass for the summer; except in the hottest weather, when I have them driven into the yard during the heat of the day to protect them from the flies, and supplied with a few green tares or a little clover; but they seldom eat much of either during the excessive heat.

In October they are again taken into the yard, but this time to be tied up to fatten, as we now call them bullocks, and that year's calves take their places in the open yard. I commence feeding them with turneps, hay, and 3 lbs. of oil-cake each per day—generally Dutch cake, which is inferior to our English cake. When the turneps are all gone, I go on upon beet root, and increase the quantity of cake to two quarts per day. I next change the cake from Dutch to English; and I

* Note.—When the term "corn" is used, I mean beans, peas, oats, or barley.

male parts in one flower, and the *female* in another. Still the latter varieties are reckoned the finest flavored fruit. Keen, a successful cultivator of this fruit, observes, that great care is necessary to be taken in selecting young plants of these sorts for making out new plantations; that there be a proper proportion of male plants to the female, not having too many of the former, as they bear no fruit, and are more prone to run into leaves and runners than the others. He considers that the proportion ought to be one male to ten females, and states his reasons for making such a choice. Having been formerly in the habit of selecting female plants alone for his beds, he failed in being able to procure crops; but in 1809, suspecting his error, he obtained some male blossoms, which he placed in a bottle on the bed of female hautboys. In a few days he perceived the fruit near the bottle to swell. On this observation, he procured more male blossoms, and in like manner placed them in bottles in different parts of the beds, removing the bottles to fresh places every morning, and by this means obtained a moderate crop where he had no fruit the preceding year." See Loudon, M'Mahon, and others.

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In my opinion, the importance of growing fruit as an article of export, has been most generally overlooked in this country. It is true the fruit-dealers of Boston have been shipping apples and cranberries to Europe for many years, and of late, apples have been shipped to Calcutta. There is no doubt that quinces and the finest quality of winter pears could be shipped to some parts of Europe with the same success as our other fruits. The business being new in this section of the country, I propose saying something relating to the export of fruit for the benefit of new beginners.

All fruits sent abroad should be of the *very first quality*. The Boston dealers ship their celebrated Baldwin apples. The most valuable variety in this vicinity is the Newtown pippins, as they keep sound and retain their flavor late in the spring, when most other varieties are gone. A distinguished horticulturist of New York, ships his apples to London in the following manner: After being carefully picked, and placed by hand in baskets, they are carried by men and put in an open barn for the purpose of sweating 15 or 20 days. Some are then packed in barrels with perfectly dry sand, some in buckwheat, and others are put in barrels without anything with them. (*a*) They are then taken on a sled, or in the box of a wagon hung with spiral springs, to a boat on the North river, and thence to the vessel which takes them to London. In all these trans-shipments the barrels are never rolled, jolted, or jarred, so that the apples escape bruising, and the consequence is they arrive in London in far better order than they are in general when brought to the New York market.

These precautions in shipping apples agree perfectly with some facts I obtained from Mr. Serrell of the American Institute, formerly engaged as a managing ship-owner in London, connected with the fruit-trade. In drawing charter parties for a vessel to take fresh fruits from Spain and Portugal to London, a special clause is inserted that the boxes of oranges shall be hoisted into the vessel by the takle being attached to each; and that the boxes also are to be stowed on their bottoms, and never on their sides or ends. On landing in London, the same care is taken in hoisting them out of the vessel. The boxes are then placed on the

heads of men known as fruit-porters, and by them carried to the warehouse, where they are examined and assorted, and then sent out in the same manner to the places of consumption. The same precautions are used in taking the oranges from the garden to the shore, from the shore to the lighter, and from the lighter to the vessel.

The Boston fruit-dealers, when shipping cranberries to New Orleans or Europe, assort them by letting them run over a platform slightly inclined. Only the perfect fruit runs over the whole length of the platform, the rotten and bruised fruit lodge going down, and are thrown away. The choice fruit is then put in tight barrels, and, when headed up, filled with water. The fruit will arrive at its destination in perfect order, and has frequently been sold in England and France at $20 per barrel.

B. G. Boswell.

Philadelphia, February, 1844.

(*a*) This last is unquestionably the best method of shipping apples. The barrels should have a few holes bored in each head with an inch and a half-augur, and ought always to be shipped on deck. See Vol. II., page 193. In addition to sand and bran, we have heard of apples being shipped in charcoal, sawdust, cider, and a variety of other substances; but so far as our experience and information extend, they never arrive in so good order as when packed entirely by themselves.

ENGLISH METHOD OF FATTENING CATTLE.

I have been greatly interested in reading your "Tour in England," as contained in the first two volumes of the American Agriculturist. Did your remarks and general detail of English farming operations require confirmation, I, as a practical English farmer, should be exceedingly willing to subscribe to their general correctness. But such, I feel, your readers can not deem necessary, inasmuch as the clear and lucid style in which your interesting Tour is written, as also the absence of any of those tales, surpassing credit, with which modern travellers love to interlard their works, bears sufficiently evident upon itself the impress of reality.

You cleverly remark in one portion of your Tour, that "you are not *particularly* ambitious of becoming the Trollope of English manners," and I congratulate you most heartily in withstanding the temptation of passing severe, or even *just* strictures upon peculiarities, which a traveller will more or less find to belong to every people. However, such indulgence among travel-writers is of course a matter of taste, and allow me to add, I think yours to be good in refraining from such indulgence.

In reading your Tour, it struck me that there was one subject which might with benefit to farmers in this country, be more fully enlarged upon. I allude to the English method of fattening cattle. I do not wish to be understood as believing that the entire system would be applicable to American grazing; but I do believe, after close observation, that some hints may be gathered from our method, which graziers in this country might turn to account; and before making any remarks upon the matter, I will give in as concise a form as possible, the plan I have pursued in England upon my own farm.

My stock is of the Durham breed. It has been my object, when possible, to have my cows calve some time in January or February, and I would never rear any produce for fattening that fell later than the last of February; my reason is, that they would not be ready to make a start with the grass in May, and consequently be a year behind the earlier ones in coming to perfection.

I wean my calves when a fortnight old, (I allude to those intended for grazing,) feeding them on milk, oats, bran, carrots, and, in fact, something of everything that the farm produces, and which they can be made to eat. At this period I consider the calves require the greatest care and most constant attention; and keeping them clean and warm are not the least important requisites. I give them a little food at a time, but feed them six or seven times a day. Almost the only ailment I have found my calves subject to at this age, is scouring; this, if not checked by times, will weaken the animal greatly, and not unlikely cause death. The remedy which I apply is at once simple and efficacious, viz., boiled rice with a small quantity of powdered ginger; administered, if the calves will not drink it, from a bottle. As soon as there is grass and the weather is warm, which is generally with us about the 1st of May, my calves are turned out in the morning and taken up again at night—well littered, with wheat-straw, (barley-straw engenders lice,) and fed with a little corn, &c.* As the weather gets warmer, I allow them to remain out all night, always feeding them night and morning with oil-cake or oats. This treatment continues through the summer. In the October following, they are taken up and yarded for the winter; running in an open yard, with a shed which they use at pleasure, behind the bullocks which are tied up and fattening. In this yard they have the odds and ends of vegetables, which the bullocks will not eat, some rough hay, and 3 lbs. of oil-cake each per day; or sometimes, in its place, a bait of bean-meal.

On or about the 1st of May in the following year, they are turned out to grass for the summer; except in the hottest weather, when I have them driven into the yard during the heat of the day to protect them from the flies, and supplied with a few green tares or a little clover; but they seldom eat much of either during the excessive heat.

In October they are again taken into the yard, but this time to be tied up to fatten, as we now call them bullocks, and that year's calves take their places in the open yard. I commence feeding them with turneps, hay, and 3 lbs. of oil-cake each per day—generally Dutch cake, which is inferior to our English cake. When the turneps are all gone, I go on upon beet root, and increase the quantity of cake to two quarts per day. I next change the cake from Dutch to English; and I

* Note.—When the term "corn" is used, I mean beans, peas, oats, or barley.

may here remark incidentally, that American oil-cake is the best for grazing purposes, and on this account used very extensively by many of our principal breeders.

The principle upon which I graze is simply this, constantly to change, and always *improve*, when I do change, the feed of my bullocks. Thus when my bullocks are being what we term "topped up," (the last stage of fattening,) they are feeding on the best hay or clover I have, beet-root, oil-cake, and perhaps bean-meal. In February and March they are ripe or ready for the butcher—they being just two years old. Their weight will vary from 750 to 850 lbs.

I will now, as nearly as I am able, lay before you the expense which I consider these beasts have been to me during these two years.

	£.	s.	d.
1st Year.—I calculate the prime cost of the calf at - - -	1	0	0
Keep from January to May -		10	0
Do. from May to October - -	1	0	0
2d Year.—Keep from Oct. to May	2	2	0
Do. from May to October - -	2	10	0
Cost of fattening - - -	12	0	0
	£19	2s.	0d.

Supposing my fat beef to be worth 7*s.* 6*d.* per stone of 14 lbs., that at 800 lbs. would be £21 7*s.* 6*d.*, thus leaving me £2 5*s.* 6*d.* profit besides the manure, the value of which it would be difficult to estimate. Suffice it to say, that if we obtain the manure *only*, as our profit, we consider ourselves amply repaid for our outlay. In making inquiries of butchers and graziers during my hitherto somewhat limited travels in this country, I have been surprised to learn that artificial food is seldom or ever used to force your beef to market, and that consequently, it is four to five years old before fit for the butcher.* When expressing my astonishment at this, I have invariably been met with the answer: "The price of meat will not warrant our going to much expense in fattening our beasts in this country." Now, sir, I would respectfully submit, through your columns, to the farmers of this country, whether it would not be preferable to obtain *two returns for their money instead of one;* or to be content with small profits every *two* years, instead of larger ones every *five*; besides improving to an inconceivable extent, the quality of their farmyard manure.

The above calculation is of course not at all applicable to grazing in America; I have merely inserted it to show the relative bearings of expense and returns attendant on forcing beef in England. Another advantage belonging to fattening early, I consider to be lessening the risk and chances of loss or accidents to the beast. It is fair to suppose that five years will be more prolific in casualities than two.

I have thus laid before your readers a subject which I believe worthy their attention and consideration; and I feel convinced they will receive my observations and hints in the same spirit which influenced me in writing them—the pure spirit of good feeling, and a sincere desire to see the agriculture of the world prosper and advance.

DENDY SHARWOOD.

New York, Jan. 10th, 1844.

* NOTE.—The writer might have said with greater truth, five to six years old, which tells still more strongly against our slow, wasteful, half-starving method of rearing and fatting cattle.—ED.

CHARCOAL AND ITS USES.

FIVE years since, I received from Italy several hundred mulberry trees, comprising the rarest and most tender varieties—packed in pulverised charcoal dust, in tight boxes. On their arrival, I found the roots as well as the buds had grown to the length of six inches. The growth was of course perfectly white, and when exposed to the atmosphere wilted immediately—the trees were in the most perfect order.

This led me to try various experiments with charcoal dust; such as striking soft wooded geraniums, of one summer's growth, wax plants, grape cuttings, and various other plants, with complete success. I likewise use it in growing vegetables, planting grape-vines, trees, shrubs, &c.—in considerable quantities on strawberry beds, potato fields, grass and wheat lands, sown broadcast. Last February I cut a young grape-vine into a single eye, in the open garden, and freely manured it with charcoal dust. Before the 20th of August it had grown 32½ feet. My gardener soaked a kernel of sweet corn in *spirits of ammonia*, double *F. F.*, for the space of 20 minutes, and planted it in a pot filled with pure pulverised charcoal dust, which he then thrust in a well-prepared hot bed; in 24 hours it had grown one inch; other grains he soaked 25 minutes, and killed the vital principle of the kernel. So strong were the fumes of the ammonia, that it destroyed a bed of cucumbers in 20 minutes, placed in a saucer in the midst of the vines under glass. The object in putting it there was to kill insects, which it did most effectually in three minutes; and had it been then removed, the probability is the plants would have been improved by the gas—there were cucumbers on them at the time six inches long.

Charcoal as a manure will be found invaluable: it is pure and incorruptible, absorbs from the atmosphere 90 volumes of ammoniacal gas, 55 of sulphuretted hydrogen, and 35 of carbonic acid gas. By uniting with oxygen, it forms carbonic acid gas, and constitutes about 42 per cent. in sugar, 41 per cent. in gum, 43 per cent. in wheat starch, 52 in oak wood, 51 in beach wood, 46 in pure vinegar, 36 in tartaric acid, and 41 in citric acid; as carbonic acid gas, it is found in all cultivated soils, in all waters, and in the atmosphere. It is absorbed by every plant that grows, the carbonic acid gas being composed of oxygen and hydrogen; it will therefore be readily conceded that being necessary to plants, in all stages of their growth, there can not be applied to them a substance more requisite. Charcoal from pine wood is the best for agricultural purposes, on account of its fine texture, which enables it to absorb moisture, together with the other gases before enumerated, more rapidly, and may be easily incorporated with the soil, where it protects plants, not only

from decay, but worms. It insures them without cessation, all the elements most required, and essentially necessary to their healthy growth, and gives them a beautiful green appearance, and luxuriance, not obtained by the use of any other substance as a manure.

All farmers are familiar with the fact that coal-beds, where pits have been formed for the purpose of preparing charcoal, produce a most luxuriant growth of vegetable substances or weeds. It has been generally supposed by those who have witnessed the fact, that it was caused by the ashes remaining on the bed, which is not so. It is owing to the hydrogen, oxygen, nitrogen, azote, &c. absorbed by the carbon. If the coal were even deprived of all the qualities specified, its black color alone would make it valuable, if only to attract the sun's rays, and thereby warm the soil.

ROBERT L. PELL.

TANNING ON THE PLANTATION.

ONE of my neighbors last year induced me to subscribe to your work, with which I am much pleased, as I find it embraces information of utility to the inhabitants of every part of the country, and well merits its title, "The American Agriculturist."

I do not know whether you have ever treated on the process of tanning,* in fact it is not an agricultural business; but in the way I am about to mention it, one that I consider as very necessary to cotton planters, and perhaps to some others. By tanning small quantities of leather for our own use, not only a saving of money may be effected, but our plow and cart gears, saddles, bridles, &c., would always be kept in good order, to the great comfort of working animals, and profit of the planter. We daily see old leather, half rotten, and pieces of rope used instead of good, sound, and soft leather, to the great annoyance of the animal and loss to the owner, in back-bands, head-stalls, &c. I am no advocate to the doctrine of every man living as much within himself as possible, by raising everything at home that he wants, but on the contrary, to the old adage of "not having too many irons in the fire," for, the fewer branches of business a man follows, the better will they be done; but in the present instance we furnish ourselves with a very essential article for carrying on our agricultural pursuits, with little loss of time, and comparatively no expense.

I would advise planters to have nothing to do with old, dry hides, which require soaking to soften, and *breaking*, as the tanners call it: but to use green hides just taken from the animal. These are to be put into lime and water of considerable strength, in order to raise the grain, swell the skin, and open the pores, to prepare them for receiving the tan, and allow the hair to be easily taken off with the back of a drawing-knife. They must be examined twice a day, and as soon as the hair will come out easily, let the operation be done; they must then be washed out in clear water and divested of all the lime in them, and immediately put in tan. A vat, barrel, or tub will answer for tanning; this and your bark for tanning must be ready beforehand. Oak-bark is generally used for tanning, and when it is used it must be well pounded or ground, that the water may saturate it properly, and imbibe the tannin matter to be communicated to the hide. But I write principally for my neighbors, and to them I say that we have plenty of palmetto, the roots of which are as good for tanning as anything else, and they are merely to be dug up with grubbing hoes, cut in pieces, and put into water with your hides; they are so porous as not to require pounding or grinding, and at the same time that we are procuring these we are divesting our ground of a noxious root. In placing your hides have some of this at the bottom of your vessel, and place some between every fold, so that no one part of the skin shall come in contact with another. If your hide is large it is best to cut it in strips of two to four pieces, so as to handle and be able to put it in tan more conveniently. While in the process of tanning, it is necessary to take it out now and then, in order to wring or allow the water to drip out, that it may receive stronger ooze, and to see that every part is receiving the ooze equally. Take every opportunity of this kind to cut and scrape off as much of the flesh as you can, that will be found adhering to the hide. If half a day out of tan every two or three weeks, it will be benefited instead of receiving injury by it; but it must be kept in the shade, as the sun would greatly injure it. Take out your tanning matter frequently, and supply fresh; it is better to do this than to crowd your leather too much. When thoroughly tanned, which you may know by cutting a small piece and letting it dry, take it out, and before quite dry, grease it with whale (tanners') oil, or neats-foot oil, and holding a part of it in your hands, beat it well on a block, changing the place of holding every now and then, so that every part may receive a proper pounding, and that this pounding may stretch it in every direction; then have a strong table or bench, and on this double and roll it and stretch it in every direction, turning first one side and then the other out, so as to make it perfectly soft and pliant. If on drying you find it not worked enough, grease and go on again. This is for harness or shoe leather; sole leather does not require this greasing and working, but simply to be hung up in the shade to dry. Every time your leather is taken out of tan, you ought to pull and cut off as much of the flesh as you can—especially just before greasing and working it as above mentioned. Strong ashes will answer in place of lime. Do not crowd your leather too much, and let your ooze be always strong.

Currying is a distinct branch, and requires an experienced hand; but after cutting out your girths, bridle reins, &c., almost any carpenter or man knowing how to use a drawing-knife, may, with a smooth board placed under it, or the wooden

* NOTE.—We gave a capital article on this subject by Mr. Affleck, Vol. II., page 276, which Mr. Winfree had not seen when he favored us with this communication; but we are not the less happy to hear from him, and gladly insert this, for we like to see the south becoming more and more independent by developing its own great natural resources.—ED.

horse he uses for drawing shingles, making axe-helves, &c., shave it down sufficiently. It ought never to be too much curried down, as the strength of the leather is between the flesh and the grain. All leather ought to be greased frequently to keep it pliant, and render it durable. White tanned leather was much in vogue here some years ago, that is, leather tanned with salt and alum. The process is easy and quick; but the leather is not durable. Leather receives little or no tan during freezing weather, and consequently it is not necessary to examine it so often. In hot weather it must be strictly attended to. Temperate weather is best for tanning.

PHILIP WINFREE.

Louisiana, Jan. 2d, 1844.

TREE DAHLIA.

IN December, 1839, we first saw a tree dahlia flourishing in the conservatory of the *Jardin des Plantes* of Paris. A tree dahlia is a novelty in horticulture, and we will state what little is yet known of its history.

It is originally from Mexico, as well as its family, and was introduced into England three or four years ago. From England it passed into Belgium, where it was established in the conservatory of M. Mawy, the celebrated horticultor of Liege. Thence it was brought to the Jardin des Plantes, in the spring of 1839. It was a small plant, and was set in the ground in the conservatory by M. Neumann. Eight months afterward it had grown eight or nine feet high, and showed its first flowers. The root is large and tuberculous, and seemed to have no disposition to produce other bunches of roots like the other dahlias. This plant has one stem, branching a little at the top—it has become *woody* at the bottom, smaller at the base than in the middle of its height. The upper part of the tree remains green and hollow, furnished with large warts. The part of the stem nearest to the ground puts out many single roots, they are stiff, and some of them strike into the ground; such as do not reach the ground dry up. The leaves are much larger than those of the other dahlia, some of them being as much as three feet long. They are set opposite to each other, are pennated, and their *petioles*, leaf-stalks, are sheathed around the stem, forming, of this plant, a species altogether different from the herbaceous species.

The flowers are *axillaires;* on the top of the plant, are largely pedunculate and diverging—are of a clear lilac color—about three inches broad—in the form of an anemony; that is to say, the exterior petals are, in number, from five to eight, are long, flat, quite narrow and numerous in the centre of the flower, but shorter and irregular in form.

They would have been considered very beautiful fifty years ago; but in our day, the herbaceous dahlia is so wonderfully beautiful and varied, that this tree dahlia will probably find admission only into those great botanical establishments where all the beauties of the vegetable world are concentrated; and this plant being only in part woody, while the rest is herbaceous, it must depend for its safety upon artificial protection.

TO THE NEW YORK FARMERS' CLUB,

GENTLEMEN—I have translated the above article on the dahlia from the *Revue Horticole* of Paris, and take pleasure in communicating it to you.

H. MEIGS,
Sec. of the N. Y. Farmers' Club.

Feb. 17, 1844.

FARM OF MR. FRANKLIN MORGAN.

I WROTE you a hasty sketch as I was making a flying tour through Massachusetts last autumn, upon the subject of wornout lands, which you published in your February No.; but fearing my observations in that article may be considered of too general a character, I hasten to "define my position" with more particularity.

A farm of 270 acres, lying within half a mile of the railroad depot, in the town of Palmer, Hamden county, Massachusetts, has remained in the same family down to the fifth generation, or until October, 1839, when it was sold. There had never been a barn upon the farm until within the last 14 years, as I was informed. The manure had been suffered to collect around the stack-yards, and alongside the fences where the cattle had sheltered themselves from year to year, and dropped it. The refuse of the hay, corn-stalks, and straw, was also left upon the ground until it had accumulated to the depth of six feet, more or less, according to the situation of the ground, and its adaptation to retain the materials thus dropped, and to collect leaves as they were blown from the forest, which in a lapse of time of nearly a century, amounted to considerable in certain positions. My informant did not speak much in favor of the buildings or fences at the time of sale. The crop of hay was estimated at 25 tons, and this not of a very good quality. The stock pastured that year was six cows, six yearlings, one yoke of oxen, and two horses, and these not kept in a thriving condition. The road leading to the church, village, stores, mills, &c., &c., was circuitous, nearly two miles to get to a point that can now be reached in less than half a mile. We will now reverse the picture from "no book-farming" to one of an opposite character.

Mr. Franklin Morgan purchased this farm at the time above stated, October, 1839, and commenced improvements on "book-farming" principles. In 1840 he mowed the brush upon the whole farm, (except such parts as he intended to grub,) in the months of June and September. This he did for three years in succession, whenever he could find a young sprout starting up. He has sowed plaster upon all the pasture ground in the month of May in each year, at the rate of 100 lbs. per acre, and he now thinks it will not be necessary to sow any more for some years, as the feed is very luxuriant, and I found it as thick as a mat at the time I visited it, which was in November last. There were then 66 head of cattle grazing upon it, all in fine condition, although the weather was cold, and

there had been some snow. The pasture is a rough, stony piece of land, of a loamy soil, mostly a side hill descending to the northeast. There were 35 acres of loamy land, free from stone. This he cleared of everything, and smoothed the surface, harrowing it each way with a heavy harrow, and very sharp teeth, sowing on herd's-grass, clover, and red-top, seeding very heavily, covering the whole with a compost to the depth of two inches or more, then harrowing again, and then rolling with a heavy roller, and subsequently sowing with plaster after having bushed it well to fill up all the little crevices, so as to leave the ground perfectly level.

Adjoining this, he had a meadow of about 15 acres covered with bogs, moss, running briars, some alder and other brush, and trash of various kinds, some part of which was covered with water. In the first place, he ditched and completely drained it, then took off the whole top below the surface, piling some of it like cocks of hay, and carting some, and the greatest part, into the barn-yard. The brushy part and bogs, he let stand until well dried, and then burned, and scattered the ashes over the ground. That which was thrown out of the ditches was carted away, and other materials mixed with it to make compost for other land. This compost is made up of the following materials: Meadow-muck, deposites around old stack bottoms, by the sides of fences, in hollows, &c., as described in the former part of this article; from stable manure, ashes, and lime. All these ingredients were well incorporated and fermented before being used. Some of the remaining heaps which have not been disposed of as above-described, are surrounded by a temporary rail fence, within which are placed a few hogs. Land-pikes, and alligator breeds, will answer very well for this purpose, a few of which are still to be found in Massachusetts. Holes are made in the heaps with an iron bar, and filled with corn, the hogs rooting them over and over until sufficiently fine to spread upon the surrounding ground, when the hogs are removed to another enclosure, thus making the saying of Dr. Franklin's servant no longer true of his porkship, that "he no work, he eat, he drink, he walk about, he sleep, he lib like a gemman."

The land thus prepared, it is harrowed with a heavy harrow, then sowed in September with herd's-grass and red-top, and in the month of March following, upon a light snow, with clover, seeding very heavily with all. In the month of May it is well rolled, and a top-dressing of yard or stable manure spread over the whole. It is said by good judges that some of this meadow has yielded three tons of hay per acre the past year, and at the time I was upon it in November, there was, on an average, more than a ton of the second crop per acre, which was being fed off by fat cattle. It is the opinion of the owner, as well as other good judges, that 200 tons of the best of hay has been cut upon the farm this year. There are other lands cultivated in grass besides the two pieces above-mentioned, say about 90 acres in all. In addition, there have been raised upon the farm 220 bushels of corn, 1,400 bushels of potatoes, 350 bushels of oats, and 56 bushels of round turneps: all the land, whether for hay, pasture, or crops, is plastered more or less.

The buildings have been erected with a strict regard to economy; the barns and sheds conveniently arranged; the dimensions as follows: One barn is 123 feet by 40, with floor through the whole length, and a cellar beneath 90 feet by 40. One shed 55 by 20; one 36 by 19; and another 48 by 20 feet. One other barn 28 by 34; one shed attached 25 by 20, and another 35 by 20. All the barns were filled. The hay on the outer lots was stacked, there not being barn-room sufficient to hold near all the hay cut upon the farm. Several small cottages are erected for laborers, who are furnished with all the necessaries of life, and never have occasion to go from home for anything, the owner always anticipating their wants, and the whole being conducted strictly upon temperance principles, as I was informed. Everything raised is consumed upon the farm, besides which, considerable hay and manure are purchased for the purpose of still farther enriching the land.

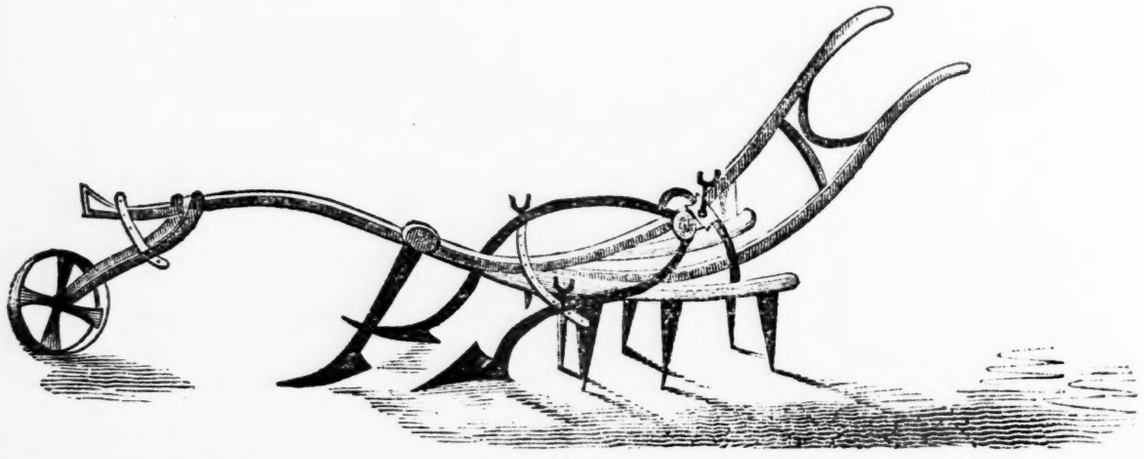
This farm was awarded the first premium for the best cultivated farm by the Massachusetts State Agricultaral Society in 1842, it having appeared to the committee that greater improvements had been made in a given time, than on any other farm in the state.

A Traveller.

AGRICULTURAL IMPLEMENTS FOR THE SOUTH.

We are familiar with the following implement, having frequently seen it at work in England; and we give the sketch of it which Mr. Nelson has so obligingly sent us, as a matter both of utility and curiosity. We have seen instruments constructed on nearly the same principle in this country, and in fact had one in use for several years on our own farm. This was designed to unite the merits of the cultivator and harrow, and can be very easily, plainly, and cheaply made, by any one accustomed to the use of tools. Where it is designed to cut up the weeds, stir the earth, and leave it level between the rows, it answers admirably. But in addition to this, the planters wish to throw the soil between the rows of corn, cotton, and sugar, toward them, and for this purpose they must have at least the two last teeth of each arm made like a plow-share with mould-boards; they can then add three more teeth like those of the harrow, or ordinary cultivator. We have recently had such an instrument made in this city for a friend at the south, and if it works well, we shall give a complete description of it hereafter. It weighs 86 lbs., and cost $10.50. We have the Implements of Agriculture, by Allen Ransome, and several other English works recently issued. If Mr. Nelson has seen implements in England, the principles of

WILKIE'S HORSE, HOE, AND DRILL HARROW.—(FIG. 21.)



which may be applied here either directly or with modifications, we shall be happy to hear from him. Our orders for them are constantly increasing, and we wish to be immediately apprized of all new inventions or improvements in this line. This is a very important subject to the farmer and planter.

Pittsburg, Feb. 17th, 1844.

UPON reading the letter of Mr. John C. Potts, at page 365, Vol. II., of the American Agriculturist, and seeing the cut of the three-share plow, (which he mentioned,) in your last February No., it occurred to me that an implement lately used in Scotland with *universal approbation*, would be just the thing for the south. It is known by the name of Wilkie's Horse Hoe and Drill Harrow. This implement, a rough sketch of which I send you, is guided and drawn like a plow between the rows, thoroughly scuffling or clearing the land from its numerous weeds. The depth to which its prongs and feathered feet go in the soil, is regulated by elevating or depressing the wheel in front. It likewise answers as a rake by dragging along with it the heaps of destroyed weeds, so that a hand can basket them off with ease; it also keeps the soil in fine order. I have seen the same implement fitted with light moveable mould-boards on each side, which answered exceedingly well where necessary to throw the mould round the roots of the growing plants, as in the case of potatoes, &c. It performs its work in a superior manner, and at less than half the cost of plowing. There are two or three minor improvements which I could adapt if I were making the implement; but in its present state it is the most effective thing of the kind with which I am acquainted, and I have seen many. If you think the implement worth notice in the Agriculturist, I would give you any further particulars you might require, or you might send a tracing of it to your southern friends. If you think this communication worth your notice, I could send you descriptions of other improved implements, which are considered (in England at least) superior to anything of the same kind in use.

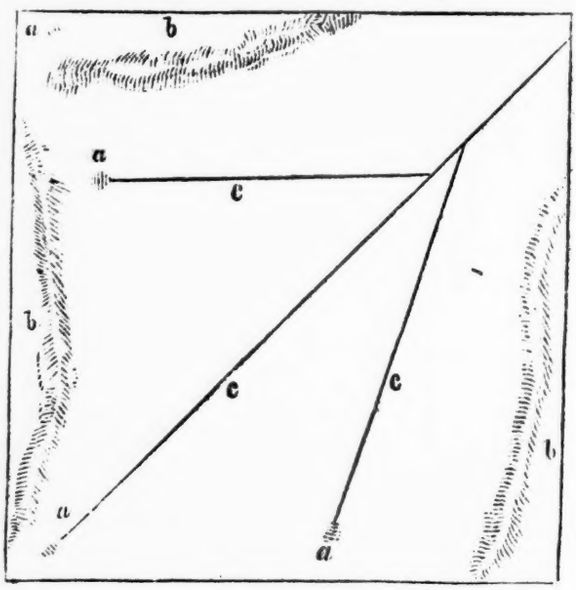
JOHN NELSON.

DRAINING LAND.

IT is now a well-established fact, that land must be dry before any permanent improvements can be made. Lime and manure are almost a total loss when used on lands that are saturated with water a great part of the year. In some cases this arises from springs, in others it arises from a heavy retentive subsoil, and the land laid down in such a form that the water can not drain off. Underdraining is the only proper remedy for lands wet by springs. The cheapest and most durable manner of doing this, is the knowledge that farmers want; and the best way to impart this knowledge is to state facts arising from experience.

In the fall of 1834 I drained six acres of land; after grubbing off the bushes which had held possession of it from time immemorial, I run three drains 2 feet wide, and 20 inches deep, over the land, all uniting at one corner of the field.

SIX-ACRE FIELD.—(FIG. 22.)



b, b, b, represent slight rises of ground 6 to 8 feet high, the rest of the six-acre field being nearly level, slightly declining to where the ditches meet in one; *a, a, a,* springs which before the ditches

were made kept the field continually wet; *c*, *c*, *c*, covered ditches 2 feet wide and 20 inches deep.

These ditches were made of common field stones, from the size of a man's head to quite small ones. A channel was cut for the water to pass by, placing stones of the proper size on each side of the bottom of the drain, and one to cover them, filled in with small stones to the height of 4 to 6 inches, levelled off, and a sod then placed grass-side down over the stone; then filled up with earth. Two of these drains are good at this time, one of them I have taken up this fall to be relaid. Ground mice are great enemies to drains; in dry weather they make nests in them, which stops the channel, and causes the water to break up through the earth.

The expense of draining the six acres alluded to, was not over $50. It was done by the laborers of the farm, and the stone was pitched from the adjoining field. The ground had never been cropped, for the most of it was a perfect quagmire for nine months in the year, overgrown with bogs and hassocks, and its value for farming purposes not over $10 an acre, before being drained.

The first crop I raised was in 1835. It was corn manured in the hill with street manure; the produce was small, owing to an unfavorable season. The next spring I sowed with oats, which made a good crop—the straw grew nearly as heavy as it could stand. The produce was 63½ bushels per acre. On two thirds of the oat-stubble I spread about 15 wagon-loads of fermented manure to the acre; on the other third at the rate of 60 loads of swamp earth per acre, and sowed 10 bushels of wheat. The wheat was as large as it could well grow, and although the rust injured it, and caused the berry to shrink, it averaged 34 bushels per acre. Wheat was then worth $2 a bushel. I was therefore well paid for my outlay in draining. The land was then laid down to grass, and has cut very heavy burdens of the best quality of hay for several years, and I now value it at $100 per acre, and it is well worth that sum for farming purposes.

In addition to these six acres, I have drained about fourteen more, with nearly similar results. All my drains heretofore, with the exception of a short one made this fall, have been made of stone. In future I shall use wood, (the boughs of red cedar,) the more durable the wood the better. Before describing the manner of making the wood drains, allow me to give cuts of three instruments which I have caused to be made for the purpose by a common blacksmith in the neighborhood.

DRAIN SCOOPS.—(FIG. 23.)

Fig. 23, scoops 14 inches long, and 3 inches wide at the top, with sockets at the ends, into which handles of any convenient length can be inserted.

DRAIN SPADE.—(FIG. 24.)

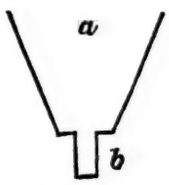
Fig. 24 is a spade with a blade 13 inches long 1½ inches wide at the end, and 3 inches wide at the top. At *a* is an iron spur 3 inches long, running out of the iron shaft, on which to place the foot to push the spade into the earth. The top of the shaft is made with a socket to insert a wooden handle, from which is extended a small iron piece with a hole in it at *b*, through which a rivet runs into the handle to keep it fast, and from slipping out of the socket.

DRAIN FORK.—(FIG. 25.)

Fig. 25 is a drain fork with prongs 2½ inches long, and 2 inches apart from each other, with a point to be inserted in a wooden handle about 3½ feet in length.

With these instruments I have had made a short drain, which satisfies me that they are preferable to stone when the quantity of water to be discharged is not large, and I think the mice will not as easily injure them as the stone drains; and they are made in about half the time that a stone drain will require. My ditcher, who has made drains all his life in England, says he has known them to stand there 18 years, when the black thorn and willow was used for filling up.

DITCH.—(FIG. 26.)



A ditch should first be dug with a common spade not less than 12 to 14 inches deep, and about two spits wide, Fig. 26, at *a*; then the narrow spade, Fig. 24, is to be used to make the trench *b*, to receive the wood. This should be 10 to 12 inches deep, and 3 to 4 inches wide. After all the loose earth is hauled out by the scoops, Fig. 23, the boughs are to be cut into proper lengths, so as to lay straight, (say 6 to 9 feet,) and then placed in the trench as close as they will lie, and pressed down with the fork, Fig. 25, even with the bottom of the first ditch. A sod is then placed over the wood with the grass side down, and pressed close with the feet. It is now ready to fill up with dirt. Great care should be taken to do the work well—its durability depends upon this.

When a field requires much draining, it may be done when plowed in lands eight paces wide, by using the narrowed tool at once in the furrows, between the ridges, after a little clearing out, or a double mould-board plow may be used to advantage.

The expense of draining with wood will vary with the different kinds of soil. In England where this kind of draining is practised to a considerable extent, a good hand will receive 2*s*. 6*d*. sterling per day, finding himself. If taken by the job the price varies from 1*s*. to 3*s*. per chain.

The farmer who contemplates draining, had, if possible, better employ an experienced hand, one accustomed to that kind of labor; if he is so fortu-

nate as to procure a faithful man, his work will be better done, answer the ends he has in view, and he will be well rewarded for his outlay of capital.

CORNELIUS BAKER.

Rahway, New Jersey, Jan. 3d, 1844.

We can add our testimony to that of Mr. Baker in favor of this system of brush draining; for seven years ago this month, (April,) we drained a field nearly in the manner that he recommends. The land lay nearly level, and being a stiff clay, retained the surface water so long upon it, as to make it nearly valueless. Our drains draw well to this day, and we think will last full 20 years. Of part of this land, we made a very fine garden, which produces well all sorts of vegetables, fruits, and vines, usually grown.

A FARMER'S EDUCATION.

We bespeak an attentive perusal for the admirable article which follows. It treats upon a subject of vital importance to the republic, and one which, to our disgrace, has hitherto been almost entirely neglected. Other nations are now taking effective measures for the scientific agricultural education of their people, and shall we look on supine and inert? By the introduction of a superior system of agriculture, England calculates *within ten years* of becoming an *exporter* of wheat! We must advance in an equal step with the nations abroad, or we shall soon become, notwithstanding our boasted independence, their mere hewers of wood and drawers of water; for their superior enlightened minds, directing matter, would soon outrival and finally overwhelm us.

Mount Vernon, Jan. 31st, 1844.

"*Practical farmers require the simplest and most elementary statements.*" This is an extract from the preface of Productive Farming, a work lately compiled by Joseph A. Smith, with praiseworthy motives, and designed "to present the scientific and technical writings of the principal agricultural writers of the present day, to the industrious farmer in a form less repulsive, because less learned, and consequently more generally intelligible." Such is the avowed object of the work, and mortifying as is the fact, nevertheless, "'tis true, and pity 'tis, 'tis true."

That men, born and educated on this continent, men of mature judgment, and, taken as a class, of greater intelligence than the like class in any other country, and enjoying more political rights than any similar class in the world, should, in literature *solely applicable to their own particular calling*, be thus placed on a footing with *children*, and be compelled to admit the justice of so placing them, indicates most conclusively the existence of error in some part of our social organization requiring a remedy. These reflections have frequently pressed themselves on my mind, and while I must admit the truth of Mr. Smith's assertion, and would most unwillingly impute any other object to him than that avowed in his compilation, I am clearly of opinion that he has not adopted the right method of serving the farmers, and of curing the acknowledged evil.

The scientific works of learned men must not be abridged and *brought down* to the intellect of the industrious farmer; but the intellect of the industrious farmer must be *elevated and brought up* to the easy comprehension of scientific works. A work on agriculture, because containing scientific terms, must not be as *repulsive* to a farmer as a spider, a caterpillar, or other insect, to a delicate lady. I trust Mr. Smith will be fully compensated for his labor by the sale of his work, for he deserves it; but with all due deference to his better judgment, and without disparagement to the work or its author, I maintain that he has mistaken the remedy, and the only one proper to be adopted in this country. Both the *cause* and the *remedy* are clearly pointed out in the first sentence of your article, page 2 of current volume. "*The present system of educating the rural population of the country is not what it ought to be.*" To this point must the public attention be directed—a reformation in the kind of instruction given in the district schools throughout the state is absolutely necessary. Let the primary acquirements and learning received through those schools be of the proper kind, and we shall soon see that the intellect of the "industrious farmer" is as capable of high cultivation and improvement as the noble farms and the most fertile soils of our country. Let them acquire in their childhood what will be serviceable in manhood.

Through the district schools the farmers are furnished with the sure and easy means of correcting this ignorance—now ripened into a proverb, and in doing so, will re-establish the *dignity of their occupation.* In place of inspectors and commissioners of common schools, there is now chosen in each town, a town superintendent, who has the entire control over all the teachers to be employed, and of all the books to be used in those schools. The *farmers* have the choosing of all those town superintendents. Let them bear this in mind. They are the *electors*, and can make their own selection of efficient officers, and let not *politics* or *party feelings* pollute those selections; let them be sanctified by the righteous and single purpose of selecting such men, and such only, as will with cheerfulness and ability attend to those duties. Duties full as responsible and important, when justly appreciated, as those discharged by the governor, chancellor, judges, or other officers administering the various duties of civil government. The youthful mind is committed to their charge. The future usefulness of our young and growing population throughout the country depend on them to be formed and moulded as those superintendents may direct.

A want of proper knowledge on the subject matters of their avocation, is in reality the cause of the seeming want of respectability in a farmer's

life. Ignorance seems to have gone hand in hand with the cultivation of the soil. The generality of mankind hold the opinion, that to be a farmer requires little or no knowledge, and frequently, when all other things fail, a farmer's life is taken up as a last resource. Is a youth stupid at his books? What is the remedy? *Why, make a farmer of him.* Who has not heard of this panacea for dullness and stupidity? A youth once destined for a farmer is destined to a life of *ignorance.* Bodily labor is considered as incompatible with all mental acquirements. This is the dark cloud which has overshadowed a *profession of all others the most honorable.* It is this dark cloud which the town superintendents can and must dispel. The light of science must be allowed to dawn upon the farmer's intellect. As the rising sun is justly held the grandest object of the visible world, so another sun, second only to that noble orb, must shine upon and illumine the youthful intellect of those destined to cultivate the soil. This sun must take its rise in our district and common schools, under the guidance and influence of the town superintendents. Who then can deny the importance and responsibility of those duties, and that they should be performed by men duly impressed with such responsibility? The laws and regulations of civil society as they here exist, are in general well adapted to protect the rights and secure all proper enjoyments to the great mass of our population, and a failure in this respect is entirely owing to the people themselves, who, inflamed by party feelings, do not elect the best men to discharge the duties required by the laws. Entrust to a farmer the duties of a sailor, to a sailor the work of a manufacturer, to a lawyer the work of a farmer, to a rogue the duties of a clergyman, and what would be the condition of commerce, manufactures, agriculture, and religion? Apply this rule to the present education of farmers. Neither the *teachers* nor the *books* employed for the purpose are of the right kind. There are not now in existence proper primary or elementary class-books for the instruction of those destined to be farmers.

Go into all or any of those district schools and examine a class in geography or astronomy, and you will find almost every question in the class-book used for the purpose, well and correctly answered, and the boys are in fact good geographers and astronomers. This is all right, and it is knowledge they should have; but ask them to name the bones composing the different parts of the head, body, or foot of a horse, a cow, or any other animal, how would both teacher and scholar stare at you? Neither politeness nor fear could restrain them from laughing at one they would consider as little better than a fool or madman. And why is this? Simply because no such matters are taught or ever mentioned in the school.

What is geography? The anatomy of the earth. What is astronomy? The anatomy of the heavens. These are both taught and well learned; and yet the anatomy of the human body, or of animals, is never thought of. All pertaining to this and the ordinary terms used by men of science when writing on this and other subjects essential to a farmer's education, are never taught nor heard of in the schools. The terms in anatomy, the names and uses of the several bones and muscles; the terms in geology, agricultural chemistry, and mechanical philosophy, &c., can as easily be learned by boys as the various divisions of the earth and heavens, and the names of the different countries and rivers on the globe.

The words promontory, isthmus, meridian, equator, &c., in geography, the words Aries, Pleiades, Ursa Major, &c., in astronomy, are not more easily learned or comprehended by children, than the words vertebra, flexors, pastern, stifle, molars, &c., would be in anatomy; or the words oxygen, hydrogen, nitrates, sulphates, &c., in chemistry, or the terms granite, hornblend, feldspar, quartz, &c., in geology. The New York society for the diffusion of useful knowledge have, I believe, examined and recommended several text-books for the use of the common schools, but none of them as far as I have seen, are of the character I should consider quite as requisite for the elementary education of the young farmer. If proper text-books on those subjects were compiled for the use of district schools, as they have been in geography, history, and astronomy, by question and answer, young people would soon become familiar with the technical words of science, which, being well understood, would then cease to be considered *repulsive.* Scientific words as they are now considered would become words of every-day use. Pedantry would cease to exist, and things would be known and called by their scientific names as readily as they are now by others. I must not here be understood as disparaging a knowledge of either history, geography, arithmetic, or astronomy—far from it. I consider all this knowledge as absolutely necessary; but I believe that with proper text-books, there is *ample* time to acquire a sufficient elementary knowledge of all those. But even were there not, I consider the entire exclusion of the other branches I have named as fundamentally wrong. I would sacrifice some knowledge in astronomy if it were replaced by equal knowledge in geology, chemistry, agriculture, or anatomy—so of history and of geography, and mathematics. Neither would I require young boys to learn by heart whole pages of the speeches of Cicero, Demosthenes, or other great orators, and keep them utterly ignorant of the elements and technical terms of those sciences by which they are to acquire their future support and respectability. I would not educate as great orators and statesmen, boys who in after life are to become practical farmers. It is true the vanity of parents may be gratified when listening to their young Ciceros, Demosthenes, Pitts, Websters, &c., and their ambitious fancy may give such shape and reality to their *future man.* Gazing into futurity, they may, by anticipation, delight on their destined ornament to some of the learned professions. But without disturbing those hallowed and pleasing aspirations of a parent, I would simply say, elevate the farmer's knowledge to be equal to that required in other professions, and all a parent's hope may then be realized in a farmer's son, well learned in his profession.

There is no denying the fact, that to most of the farmers of the present day, words of science are "*repulsive.*" They are not understood by them, and although they have a desire, as occasion permits, to read for pleasure and instruction, it is irksome, and indeed impossible, to turn this pastime into hard and severe study. They can derive no pleasure from reading in ignorance, not comprehending the technical terms of their subject, or in spending most of the time which they can devote to reading, in hunting out the meaning of words. Hence it is, that not only *books* of science, but *men* of science are avoided by the farmers. They receive no pleasure when brought in contact with either. Thus they are induced to avoid them, and thus as a matter of *choice*, not *necessity*, they take a lower rank in society than the *true dignity* of their occupation requires.

I trust enough has been said to demonstrate the true cause of the present situation of farmers, and that they have the remedy in their own hands. I will now point out a practical mode of applying this remedy, which in less than fifteen years, (and this in the life of a community is a short period,) will create a class of industrious farmers, for whom it will not be necessary to abridge the works of scientific writers on agriculture, and to present their works in a form *less repulsive, because less learned, and consequently, more generally intelligible.*

As that which is everybody's business becomes nobody's, I will take the liberty of designating an institution under whose direction the work of reform should be commenced. In making this selection, I do not intend to reflect upon, or underrate the utility of others. I name the *American Institute*, because if its objects are to promote national greatness, it will never have a better opportunity. It is an institution fast growing into importance if properly directed. It is now conducted by men of comparative leisure and much experience. It has received much public patronage, and can not with reason object to incurring the slight expense required for the purposes I mention. Let then the American Institute, through their committee on agriculture, or a committee of the Farmers' Club, or a committee from the New York State Society for the diffusion of useful knowledge, ascertain from the superintendent of common schools, the names of all the town superintendents in the state, and their places of residence. Address a printed communication to each of these, setting forth the object in view, get from them assurances that they will cause to be introduced and used in all their district schools, such text-books on agriculture, geology, chemistry, anatomy of animals, &c., as shall be recommended to them by the Institute, and also the number of such books required in each school, and in the district libraries. Let them also open a correspondence with all the county agricultural societies, &c, to aid in making up a *suitable* reward or premium to be offered for the best text-books.

When this is done, let the same committee advertise for the best elementary text-books on those subjects, to be selected for approval at such time, place, and in such manner, as may be deemed most advisable; stating also the probable number of such approved books that will be required, and the premium or reward to be given, and I am satisfied that the certainty of remuneration to arise from said premium, and from so large, expeditious, and certain a sale of such approved text-books, would command the talents of competent men, and that geology, anatomy, agriculture, and chemistry, adapted to the use of common schools, would occupy the talents of many an Uncle Philip, Peter Parley, Mitchell, Davies, &c.

Let whatever committees may be appointed to examine and approve of those text-books, be men of science in each department, who will carefully and honestly discharge their duty; let no undue influence be brought to bear in procuring recommendations of books; let the town superintendents employ *competent teachers*, (a duty not sufficiently estimated at present,) and let the class-books so recommended and approved of, be thus introduced and used in all our common schools. Such an organized and simultaneous movement in this state must inevitably spread through and be adopted in other states, and as I before said, in ten or fifteen years from this time, the compilation of Joseph A. Smith may be required in other countries, but in this, will be of little use.

THOMAS ADDIS EMMET.

CULTIVATION OF FRUIT.

SOIL.—The hard gravelly soil of the eastern states, the sandy soil of New Jersey, the clay soil of Pennsylvania, and the rich alluvial bottoms of the west, all produce an abundance of the different varieties of fruit when proper attention is given to the trees. Mr. Phinney, of Lexington, Massachusetts, has ditched and drained one of his swamps, and has now on it a luxuriant orchard of apples-trees. *The great point is to have a dry soil.* If it is not sufficiently rich, make it so; no man should *expect* to have *fine* crops of anything unless his soil is rich.

SETTING OUT TREES.—If by exposure the roots have become dry, immerse them in water for 20 or 30 hours previous to setting them out. Prepare a compost as follows: Take 3 bushels of rich soil, or 3 bushels of swamp muck would be better, 1 bushel night soil, 1 bushel fine charcoal, (if charcoal is plenty 3 to 4 bushels is to be preferred,) 1 bushel slaked lime, 1 bushel of unleached, or 2 bushels of leached wood ashes, and 1 peck of salt. Mix the above well together.

Dig the holes 3ft.wide,2 feet deep, keeping the top soil by itself, fill in a portion of the bottom soil until nearly ready for the tree, then fill in half a bushel of the compost and set in the tree, spreading out the roots to their natural position, and fill in the top soil, gently shaking the tree two or three times to settle the soil around the roots. The tree should be set the same depth in the orchard, that it stood in the nursery. Leave the soil a little hollowing about the tree to catch and retain the rain-water. Put around each tree half a peck of fine charcoal, and half a peck of slaked lime. With these precautions, neither peach nor any other fruit-trees will be infested with worms at the roots,

provided they have suitable after-culture. For many of the above suggestions the writer is indebted to R. L. Pell, Esq., of Pelham, Ulster Co., New York.

Culture of Orchards.—The soil around the trees should be kept loose, either by spading, digging with a mattock, or by plowing. If a crop is put in the orchard, nothing should be planted or sowed within five feet of the trees, as the nourishment taken up by the crop is so much taken from the growth of the trees. After the lime and charcoal has laid around the trees one year, spread it around the trees in a circle of ten feet in diameter. This should be done in the spring, when the soil is cultivated, and a fresh supply of lime and charcoal applied.

When the trees have been set out three or four years, the soil should be enriched with a compost of manure, swamp-muck, and ashes. Early every spring the trunks of the trees should be washed with strong ley, strong soap-suds, or thin soft soap. Apply either of these with a whitewash brush as high as a man can reach. When the trees grow rapidly, their growth will be increased by slitting the outer bark the whole length from the ground up to the limbs. This gives the trees room to expand. As soon as the trees blossom, throw over them lime perfectly slaked—this should be done while the dew is on.

To Render Old and Barren Orchards Thrifty and Productive.—Early in the spring plow the entire orchard and enrich with a compost of manure, swamp muck, lime, and chip manure. Scrape off all the old bark with a deck scraper, or a hoe, ground sharp. Apply half a bushel slaked lime, and the same of fine charcoal, around each tree. Apply then soft soap or strong soap-suds on the trunks and limbs as high as a man can reach. While the trees are in full bloom, throw over them a good supply of fine slaked lime.

To Destroy Caterpillars.—As soon as the nests can be seen, procure some pure spirits of ammonia, tie a small piece of sponge to a pole that is long enough to reach the highest nests, fill the sponge with ammonia, and once filling will be sufficient to rub off and destroy from thirty to forty nests.

B. G. Boswell.

Philadelphia, February, 1844.

GEORGIA LANDS AND AGRICULTURE.

I was struck with a communication in a former number of your paper, apprizing your readers that farmers from the middle states were turning their attention to the lands in Virginia. I have often wondered why all the immigration from those states should tend westward. It can not be that such a cold, not to say wild region, is more desirable than our genial clime. I can think of but two causes to deter the immigrant from our sunny clime, and they are imaginary. I understand that northern people suppose we are much exposed to fever and ague. From all I can learn, there is much more of it in the west than the south. Some parts of the southern country, it is true, suffer from diseases engendered by miasma; but others, and the larger portion, (I speak of Georgia,) are as free from them as any section of the Union. Middle and upper Georgia is, I presume, as healthy a region as you will find in the world. The lower part, comprehending the pine land, is nearly a level plain. The growth is almost exclusively long-leaf pine, and, except on the streams, the soil is generally a sandy barren. This region extends from the Atlantic 150 or 200 miles, then comes the middle region, which is undulating, well watered, and timbered with oak, hickory, &c. This section extends from the pine land to the mountains, and is about 100 or 150 miles wide. Then comes the northern or mountain portion of the state, where all the northern fruits and vegetables grow in great perfection.

But to return to the middle region, with which I have to do. This is the great cotton portion, and when new, much sickness was occasioned by killing thousands of acres of heavy timber, in preparing the land for cultivation. That portion of country lying between the Oconee, I may say even the Ocmulgee, and the Savannah rivers, is now called "the old part of Georgia." Much of it, particularly on the Savannah river, was settled soon after the revolution, and some of it, as Wilkes, Columbia, &c., during that period. There is now but little new land cleared, and the consequence is, that fever is hardly ever found except occasionally on the water courses. Many northern people live and die here without ever having had a chill or bilious fever. Consumption, and those diseases occasioned by cold, are almost unknown. I believe my own family is a fair specimen of the health of the country in which I live. I have been housekeeping ten years, have had a family numbering from 20 to 60, and have only had one bilious case during the time, and that was a light case of chills following the Tyler grippe last fall.

I presume the other reason why many of your people are deterred from our country, is on account of the institution of slavery. That may be avoided by owning none—for thousands live in the midst of them without owning one, and I have never heard the first man complain that the black population was the least in his way. But the objection, if such it be, may be obviated by selecting a county where the population is white. By reference to the census, you will perceive that some counties have no more than many counties in New York have of free negroes.

The advantages of Georgia are many and striking. Thousands of stock have lived throughout the winter without feeding. It is a very common occurrence for hogs to run wild, and live for years on the mast to be found in the woods. Now hundreds, nay thousands of bushels of acorns might be gathered on the creeks. Our green crops are kept all winter, without being removed. My cabbages and ruta baga are now standing in my garden, green and growing. Beets need not be removed until you wish them to feed. Potatoes will lie in the ground all winter, and grow off finely in the spring. Most of the northern fruits grow well with us; besides which, we have the fig, and might have many other tropical fruits in

great abundance. Only a few of the grapes grow well. The blue grass, I believe if planted in rich land, would do well. It is now green and flourishing in my yard, affording good grazing. The rich, low grounds, which are but little used, will grow it most luxuriantly.

But what will be most interesting to your agricultural readers, is, that we have land in great abundance, and at very low prices. Our planters have had land so plenty, that they have usually found it most convenient to cut down the forest, cultivate the land, until too much exhausted to make heavy crops, and then desert it for a new county. The consequence is, that no attention has been turned to manuring, or any other improvement. When one of these plantations has been "worn out," as it is called, it is sold to an adjoining planter for a very low price, say from one to five dollars per acre; consequently, one man will often become the owner of thousands of acres, with one tenth or one twentieth in cultivation. The old lands are suffered to remain uncultivated and unfenced, when they grow up in pines, briers, and finally the original forest growth of the country; these are again cleared and put under cultivation. This process has been repeated more than once, on the same piece of land, with success. It is interesting to perceive how rapidly, I might say sagaciously, nature will renovate the earth when turned over to her fostering care. On these deserted plantations are always to be found small lots, containing from 10 to 100, and sometimes several hundred acres of woods.

A small farmer may always buy an abundance of *good* land for cultivation, by taking the old land for nothing. Several hundreds of acres are often sold for a dollar, or less per acre. The usual rule is to sell the wood land for what it may be thought to be worth, and give to the purchaser the old land and houses for nothing.

Perhaps I could not give your readers a better idea of the state of real property, in the old part of Georgia, than by an account of a trade made a few weeks ago by a gentleman in this vicinity. He purchased a tract of land containing 1,000 or 1,200 acres, very desirably located, having 320 acres in woods. He gave $10 per acre for the wood land, and nothing for the balance.

On it there are 50 or 60 acres of low grounds that will bring 40 or 50 bushels of corn to the acre. The balance of the wood land will produce 25 to 30 bushels of corn, and 1,000 to 1,200 lbs. of seed cotton to the acre. A favorable year it would average a light bag of cotton per acre, the bag weighing 300 to 350 lbs. The wood land is well timbered with oak, hickory, poplar, walnut, &c. The old land, most of it grown in pine, would produce near half as much as the wood land. With manure, and the care given to land in countries where it is scarce, it might soon be made to double and treble the products above supposed. Our soil has a fine retentive clay foundation; some of it covered with a gray, and some with a strong mulatto loam.

Our planters are beginning to bring their creek and river-bottoms into cultivation, with great success. The soil from the upland has been washed on them, until they are as fertile, it would seem, as any soil in the world. Planters have so long had an abundance of fresh upland to cultivate, that they would not risk the destruction of their crops by inundation. But by proper draining, straightening, and clearing the channels, this can often be prevented; and experience has shown that corn is seldom injured by an inundation. The streams being small, the water passes off in a few hours, or days at farthest.

We are now beginning to learn that *old land, manured*, is the *surest* soil for cotton. *There is no end* to the materials for manure. The swamp deposites, as rich as vegetable deposite *can* be, are inexhaustible. During summer the pasturage on old lands and woods, not under fence, will support any number of cattle that one may choose to turn upon them. We usually stop feeding early in April. When our corn is gathered in the fall, it affords abundant pasturage until Christmas, and then we feed away the corn-shucks, or husks, till April. In this way our planters keep 50 to 100 head of cattle, less or more, according to their wealth. And yet, there are men who keep 100 head of cattle, 20 horses, 200 to 300 hogs, sheep, &c., who do not make 50 wagon loads of manure during the year. A farmer who understands making manure would be a blessing to any neighborhood in which he might settle.

Though the old part of Georgia does not suit large planters accustomed to the old habit of destroying the finest soil in the world, yet for moderate, or small farmers, or even large ones, disposed to improve, I believe it to be the most desirable portion of the globe. For $1,000 or $1,500, a comfortable house and out-houses, garden, &c., may be had, with several hundred acres of land, out of which might be selected 30, 40, 50, perhaps 100, or even more, acres of good wood land. Besides, out of the old land lots could be found of all sizes, say from 5 to 20 acres, of good level land, wanting nothing but a fair chance to become as fertile as may be desired.

No attention has been given to ditching until lately, and in a few instances, which is sufficient to show that a wonderful revolution will be effected in our agriculture by this means. The rich loam from the hills is deposited on the banks of creeks and branches, entirely susceptible of cultivation, in almost every instance by judicious draining. In thousands of places, a few acres may be had fit for cultivation without draining; but our people having been in the habit of plowing fields, varying from 10 to 100 acres in size, overlook these rich little nooks and corners, and will continue to do so as long as by removing to a new country they can be indulged in their old ways.

Where our land lies rolling, the soil is soon washed off by the heavy rains to which our climate is much subject. Very little effort has been made to prevent this; and where land is cultivated from year to year in corn or cotton, it is obvious that the soil will soon be gone from the hillsides. Indeed, the temptation to make cotton is so great, that our planters have generally been

willing to sacrifice their lands for quick returns. The late low price of cotton had somewhat arrested this destructive system, but I fear it will return with the increased value of the great staple.

The middle, and particularly the mountain portion of Georgia, has water-power sufficient, I presume, to turn every manufactory in the United States. It may be had for almost nothing. There are some 20 or 30 cotton factories in the state, which are said to be doing well. An English company, I learn, has purchased a shoal on the Savannah river, and several thousand acres of land adjoining for the purpose of appropriating the whole of this copious stream to manufacturing purposes.

GARNETT ANDREWS.

Washington, Wilkes Co., Ga., Jan. 24th, 1844.

THE ENGLISH OAK IN AMERICA.

I NOTICE a communication in your February number, relative to the English Oak, (*quercus robur.*) That species was long since introduced by my grandfather, and a few years since we had 10,000 of them from 6 to 10 feet high, and advertised them, specifying their character of holding their foliage late, and being a kind of sub-evergreen. The name of oak, however, is so familiar to every one, that there were few or no purchasers, and after presenting a score or two to our then townsman, Richard L. Franklin, Esq., and a few to other neighbors, the balance were consigned en masse to the brush heap. There are two species of European oak that are much preferable to the English oak, and for the same properties for which that is recommendable, as well as for others which that does not possess. One of these is the Turkey oak, (*quercus cerris,*) the foliage of which is much handsomer, and remains green longer than the English oak. It is one of the most beautiful trees of the middle and south of Europe—in majesty equaling the most lofty; leaves long and pinnatified, and its long oval acorns borne on long peduncles, presenting the appearance of small pipes. The other is the Tawzin oak, (*quercus tawza,*) a tree of humbler growth than the preceding, but perhaps surpassing it in the beauty of its foliage; the leaves very deeply lobed, and as persistant as that species. This has also the property of flourishing on the most sterile soils, and I am inclined to think the Turkey oak will also do so.

WILLIAM R. PRINCE.

Prince's Nursery, Flushing, Feb. 13th, 1844.

N. B. Will your correspondent, S. S., page 43 of your February number, please to state what species of cherry his peach-trees are worked on?

PLASTER NEAR SALT WATER.

I AM no farmer, and make no pretensions to familiarity with agricultural chemistry; but having tried plaster of Paris as a manure, and with much success, and seeing you are disposed to call the attention of your readers to the use of it on the seaboard, I place the following facts and reasonings at your disposal.

My residence, with a few acres of land around it, is about half a mile in a direct line from the Sound, and fully open to the influence of winds from the east and southeast, charged with the moisture of the ocean. I came to New Rochelle in the summer of 1839, and found a piece of land which was at my service as a pasture, and a little farther from the salt water than my house, (say a quarter of a mile,) almost completely worn out. The grass and daisies it produced were so worthless, that I gave them away to any one who would be at the trouble of carrying them off. Next spring I sowed plaster on it; and nothing else was used for manure. The crop of grass and red clover it produced struck the farmers who saw it with amazement. It was near a church, and a natural object of attention to a rural congregation, who knew it well. When the question was asked, "What manure has been used to resuscitate the land so wonderfully?" and the answer was "Plaster, and nothing else," some were sorely puzzled. The lot has been constantly used since, both for mowing and pasturage, and large crops obtained by the use of plaster, and *nothing else.*

I have tried the same experiment on ground nearer the Sound, though there it has not been as clear a test of plaster *alone*; for stable manure was employed also. However, there where plaster was used most freely the red clover was thickest.

T. W. COIT.

New Rochelle, Feb. 7th, 1844.

ERRORS CORRECTED IN THE REPORT OF MR. PELL'S EXPERIMENTAL FARMING.

See an account of Mr. Pell's experimental farming in the report of the proceedings of the New York Farmers' Club, page 359, Vol. II., of the American Agriculturist, in which the Secretary of the Club wishes to make the following corrections of errors.

1. "That Mr. Pell sprinkled about a bushel of salt over every load of hay." It should have been "over every alternate layer composing a ton."

2. "That he had twenty thousand apple-trees in full bearing." It should have been "in bearing," being eighteen years old. The communication signed "Dutchess County," page 53 of the March No. of the current volume of the Albany Cultivator, says "they plant apple-trees from 36 to 40 feet apart, allowing 25 or 30 trees to the acre." Mr. Pell's trees are planted 19, 20, and 25 feet apart. Nineteen feet apart would allow each acre 121 trees, 20 feet apart, 109 trees, &c., &c.

The object in thus planting, was to obtain fruit ten or twelve years after they came into bearing, as fruit from young trees is usually found to be of superior quality. When they interfere with each other, the centre tree will be cut out, and they will then be 38, 40, and 50 feet apart.

3. "That he employed a man from Vermont to engraft 10,000 apple-trees." It should have been "400 apple-trees, (being 18 years old,) in which trees, 10,000 grafts were set."

4. "That out of the 20,000 grafts, few fail-

ed." It should have been "that out of 10,000 grafts, not more than ten per cent. failed."

H. MEIGS, *Sec. of the N. Y. Farmers' Club. March 7th*, 1844.

LIME AS MANURE.—In answer to inquiries in your paper, Vol. III., page 71, relative to the price of lime by the quantity, I will furnish, delivered in New York, or in the vicinity, for the sum of 85 cents per cask, of three bushels each, at any good landing-place where a vessel can safely go drawing 8 or 9 feet water. I should be happy at any time to receive orders for lime, which will be promptly met. WM. A. NORWOOD.

Camden, Me., March 5th, 1844.

CHOICE FRUIT.

A FARMER finds few things in life more difficult and perplexing, than to make his selection of fruit trees from a nursery containing several hundred varieties of fruit. To obviate this difficulty, I propose giving a list and short description of such as will give satisfaction to purchasers. I give the name best known in capitals, but when there are several names for the same fruit, I give the synonymes in italics.

APPLES.

EARLY HARVEST, *Prince's Yellow Harvest, July Pippin.*—Fruit medium size; bright straw color; flavor fine—ripe in July and August.

EARLY RED JUNEATING, *Red Margarett, Strawberry.*—Rather small; very rich and fine—ripe in August.

SUMMER QUEEN, *Early Queen.*—Fruit large and oblong; striped with red on a yellow ground; high flavored and fine—ripe in August.

SUMMER PEARMAIN, *American Summer Pearmain, Early Summer Pearmain.*—Too well known to need any description—ripe in August.

PORTER APPLE.—This is a new variety that originated on the farm of Rev. S. Porter, Sherburn, Massachusetts. Fruit large; oblong shape; skin bright yellow, with a red blush—ripe in October, and commands the highest price in the Boston market.

FALL PIPPIN, *Golden Pippin, Hollawl Pippin, Cobbett's Fall Pippin, Vandine.*—Of all fall apples, this stands at the head of the list. Fruit large and of a roundish oblong form; skin smooth and yellowish-green, tinged with orange; flesh tender, with rich juice—ripe in October, and keeps till January and February.

SEEK-NO-FURTHER, *Rambo*, or *Romanite.*—This fruit is much cultivated about Philadelphia. Shape flat, resembling the Vanderveere, but is a better fruit; skin pale yellow, streaked with red; flesh tender and sprightly during the fall—is both a fall and winter apple.

STROAT, *Straut.*—A fine fall apple, introduced by the late Judge Buel, of Albany—in use from September to December.

ESOPUS SPITZENBURG.—Fruit large and oval shape; color red, covered with light yellow spots; flesh of the finest flavor for dessert or cooking, and keeps till February.

BALDWIN, *Baldwin Pippin.*—In the Boston market this fruit has long brought the highest prices. Color bright red, tinged with yellow; flesh juicy, rich, sweet, and most agreeable flavor—ripe in November, and keeps till March.

BELLEFLOWER.—A beautiful fruit long celebrated about Philadelphia as their finest winter fruit—ripe in October, and keeps till March.

BLUE PEARMAIN.—A well-known fruit about Boston. Large size; color red, covered with a blue bloom; flavor delicious, and keeps till January.

HUBBARDSTON NONESUCH.—A most popular new fruit lately brought out in Massachusetts, often commanding $5 per barrel in the Boston market—ripe in November, keeps till February.

MAIDEN'S BLUSH.—One of the handsomest fruits in the country. Size large, roundish shape; skin pale greenish yellow, tinged with a blush; excellent for table use or cooking—ripe in August and September.

LADY APPLE, *Pomme d'Api.*—Fruit small; of pale yellow color, deeply tinged with red on one side; flesh crisp and pleasant—ripe in November, and keeps till April.

MONSTROUS PIPPIN, *Gloria Mundi, Ox Apple.*—Fruit of enormous size, sometimes weighing 28 ounces; of a pale yellowish green color; sprightly flavor—ripe in October, and keeps till January.

NEWTON PIPPIN.—Of this most valuable apple there are two varieties, the yellow and the green; no difference in quality; keeps till May, and retains its flavor—the most valuable variety for shipping to Europe.

RHODE ISLAND GREENING.—Fruit large; skin greenish yellow; flesh slightly acid and of fine flavor; keeps from November till April.

ROXBURY RUSSET, *Boston Russet, New England Russet.*—Has been long known about Boston; size medium; fine yellow russet color; flesh rich, juicy, sub-acid; and keeps till June.

SWAAR APPLE.—A celebrated winter fruit in some part of New York; of fine flavor; skin greenish yellow, tinged with a blush—keeps till March.

WINE APPLE, *Hay's Winter, Large Winter Red, Fine Winter.*—A beautiful fruit highly esteemed in the Philadelphia market—keeps till February.

HOLLOW-CORE PIPPIN.—A new variety raised in Jefferson county, Ohio. It resembles the yellow Newton pippin in its fine flavor—keeps till April and May.

OHIO PEARMAIN.—A new and beautiful variety in Ohio; good size; striped red and yellow; quality excellent—keeps till May.

HARRISON AND CAMFIELD.—Both long raised in the neighborhood of Newark, New Jersey, and HUGH'S VIRGINIA CRAB, much cultivated in Pennsylvania and Ohio, are decidedly the most valuable varieties for cider to be found in the country.

In the west and other portions of our widely-extended country, many new varieties of choice apples are constantly coming into use. The above are varieties found at most of the nurseries in the eastern states.

PEACHES.

The following varieties of peaches are those principally cultivated by the peach-growers of New Jersey and Delaware for the markets of Philadelphia and New York. They furnish a succession of fruit for ten or twelve weeks.

TROTH'S EARLY RED.—The finest of all early peaches—ripe in August.

RED CHEEK RARERIPE.—One of the best peaches cultivated in the country; size large; flesh rich, juicy, and delicious—ripe in September.

EARLY YORK, *Early Red Rareripe, Early York Rareripe.*—Size medium; color rich red; flesh juicy, rich, and luscious—ripe early in August.

MORRIS RED, *Gross Mignonne.*—Fruit large; skin greenish yellow, with a blush; flesh melting and delicious—ripe in September.

Morris White, *White Rareripe, Lady Ann Stewart.*—Fruit large; form rather oval; skin yellowish white; flesh white, rich, juicy, and sweet—ripe in September.

Yellow Rareripe, *Yellow and Red Rareripe, Large Yellow Nutmeg.*—Skin yellow and red; flesh firm, rich, and delicious—ripe in August and September.

Large White Rareripe.—As its name denotes, a large white fruit—ripe last of September.

Red Cheek Melacaton.—Fruit large; form oval; skin yellow, with red cheek; flesh rich, mellow, juicy, and luscious—ripe in September.

Oldmixon Freestone.—Fruit large; skin white, with a blush; flesh juicy, melting, rich, and luscious—ripe in August.

Smock's Freestone.—Some specimens of this fruit have measured 12 inches in circumference; shape oblong; skin yellow and dark red; flesh yellow, rich, melting, and delicious—ripe in October.

Reeve's Late Yellow Freestone.—A new variety, highly prized in the Philadelphia market—ripe in September.

Freestone Heath.—Fruit large, oblong, and beautiful; color yellowish green, crimson next the sun; flesh rich, juicy, and vinous—ripe in September and October.

Late Heath Cling.—Fruit very large; oval form; skin downy, nearly all white; flesh rich and high flavored, tender, and juicy—ripe in October.

Oldmixon Cling.—This is considered the finest of all cling-stones; skin yellow, with a bright red cheek; flesh rich, juicy, sweet, and high flavored—ripe in September.

Lemon Cling, *Kennedy's Carolina, Pineapple Clingstone.*—Size large; shape oval; skin yellow, with a blush; flesh firm and rich; some have weighed 12 ounces each—ripe in September.

Rodman's Cling.—Size large; of a pale yellow color, with a blush on one side; flesh juicy, vinous, and delicious—ripe last of September.

Eastburn's Choice.—A new and valuable variety; fruit large and nearly round; skin pale yellow, with a red blush; flesh yellowish white; juice pleasant and sprightly—ripe in October.

Tippecanoe.—A new and splendid variety which takes the first rank at the Pennsylvania horticultural exhibitions. Size large; color beautiful yellow with a red blush; flesh yellow, firm, and juicy—ripe in October.

Columbia.—Fruit medium size; skin rough and thin; color dull red; flesh yellow and fibrous, similar to a pineapple, juicy, and rich—ripe in September.

Crawford's Late Melacaton.—Fruit very large and round; skin yellow and red; flesh yellow, juicy, and sweet, with an agreeable acidity—ripe in September and October.

Many of the above peaches are cultivated in different sections of the country under different names. There are also many new seedling varieties in different parts of the country of excellent quality, but are not known out of their immediate vicinity. It is to be hoped that the general interchange of scions lately established by the American Institute will assist to bring into notice the choice varieties of fruit from distant portions of the Union.

PEARS.

When some of our nurserymen offer from three to four hundred varieties of pear-trees, it must, to a new beginner, and one entirely unacquainted with the different varieties of fruit, be a most difficult undertaking to make a selection. The present object is to give a list of such as will bring a succession of fruit, and are well known varieties.

Beurre d'Amanlis.—Size large; color green, changing to yellow, with a blush; flesh melting, juicy, and excellent—ripe in August and September.

Bloodgood.—A large fruit, of a dull yellow color, covered with dark russet spots; quality excellent—ripe in August.

Crawford.—Size medium; skin light yellow; flesh tender, juicy, and good—ripe in August.

Dearborn's Seedling.—Fruit medium size; skin smooth, thin, and green, with russet spots; flesh melting and of fine flavor—ripe in August.

Jargonelle.—Fruit large; pale green color, a little marked with red; flesh melting, juicy, with a slight acid; rich and fine flavor—ripe in August; the tree a productive bearer.

Steven's Genesee Pear.—A new American variety of large size; color mellow green; flesh white, juicy, and melting; flavor excellent—ripe in October.

Bartlett, *William's Bonchretien, Autumn Superb.*—One of the most superb varieties; color tinged with red; flesh very melting and delicate; juice perfumed, sweet, and abundant—ripe early in September.

Belle Lucrative.—A beautiful Flemish fruit; skin yellow, with a slight blush; flesh melting and juicy—ripe in October.

Bleeker's Meadow, *Large Seckle.*—Skin yellow, tinged with dull red; flesh melting, juicy, and delicious—ripe in November, and keeps till January.

Brown Beurre.—Fruit large; greenish yellow and dark red color; flesh melting, buttery, and excellent—ripe in October and November.

Cushing.—Skin light yellow, mottled with dull red on one side; flesh melting, white, and sprightly—ripe in September and October.

Dix.—Large yellow fruit, with a blush; flesh melting and excellent—ripe in October.

Harvard.—Fruit of good size; skin russetty yellow, tinged with red; flesh juicy, melting, and excellent—ripe in September and October.

Marie Louise.—A splendid fruit; skin yellowish-green and cinnamon-colored russet; flesh melting and rich—ripe in October and November.

Seckle.—This is considered by many the finest variety in this country; color from yellowish to brownish russet, red next the sun; flesh juicy, melting, spicy, and very superior flavor; tree an abundant bearer—ripe in September and October.

Virgalieu, *Butter Pear*, in Pennsylvania, *St. Michael's* of Massachusetts, and has thirty other names in different parts of the world. Fruit middling size; skin pale citron yellow, with cinnamon russet, speckled; flesh white; juicy, buttery, and delicious—ripe in September and October.

Beurre d'Aremburg.—Fruit large; flesh rich, melting, juicy, and high flavored; and keeps till March—the tree a great bearer.

Columbia.—An excellent native fruit; size large; fine yellow color, tinged with red; flesh rich, juicy, and excellent—ripe in November, and keeps till January.

Easter Beurre.—Fruit large; color green, but yellow at maturity; flesh yellowish-white, buttery, and melting, and very high flavored—eatable in November, and keeps till May.

Pound Pear.—Fruit very large, has weighed 33 ounces; skin rough, covered with dull russet; excellent for baking or stewing in winter.

Surpasse Virgalieu.—Fruit large and nearly

round; skin yellow, with a light blush; flesh rich, juicy, and delicious; tree an excellent bearer—ripe in October and November.

Vicar of Winkfield, *Monsieur Le Curé.*—Fruit large; skin russetty yellow; flesh rich. sweet, and excellent—in eating from December till February.

There are many other valuable varieties, and those who wish for larger assortments, will find very full descriptions of fine fruits in the last edition of Bridgeman's Young Gardener's Assistant.

CHERRIES.

Downer's Late Red, *Downer's Favorite.*—Fruit large and round; color light red flesh firm and fine—ripe after most other varieties are gone.

Kentish, *Early Kentish, Long Stem, Montmorency.*—Fruit round; skin red; flesh acid; juicy and abundant; fine for cooking—ripe in July.

May Duke, *Early Duke, Holman's Duke, June Duke.*—Fruit roundish and grows in clusters; skin very dark red; flesh soft and juicy—ripe in June.

American Amber, *Early Amber, New Honey.*—Fruit beautiful and of medium size; dark pink or amber color; flesh rich, sweet, and fine—ripe in June.

American Heart, *Arden's White Heart.*—Color pale yellowish; flesh tender and palatable—ripe in June.

Manning's Black Bigarreau.—A new variety from the nursery of the late R. Manning, of Salem, Massachusetts. Fruit large; flesh sweet and of peculiar fine flavor—ripe in July.

Yellow Spanish, *Graffion, Imperial, White Orleans, Turkey Bigarreau.*—Fruit very large; heart-shaped; amber color, red next the sun; flesh firm, sweet, and fine flavored; one of the very best varieties; tree an abundant bearer—ripe in July.

Ox Heart, *Harrison's Heart, White Bigarreau.*—Fruit large; heart-shaped; color pale yellow and white, mottled with red; flesh white, firm, and well flavored—ripe in June.

Black Eagle.—A handsome variety; fruit of globular form; skin dark purple; flesh tender, rich, and of fine flavor—ripe in July.

Black Tartarian, *Black Russian, Ronald's Large Black Heart.*—Large heart-shaped and of very superior quality; color dark shining purple or black; flesh firm, purple, and sweet; tree very productive—ripe in June.

Elkhorn, *Black Ox-Heart, Large Black Bigarreau.*—Fruit large and heart-shaped, an excellent variety for market—ripe second and third week in July.

Knight's Early Black.—Color rich, dark hue; flesh firm, juicy, and sweet—ripe in June.

Napoleon Bigarreau.—One of the finest varieties; fruit white, with red spots; size large; flesh white, solid, and sweet—ripe in July.

White Bigarreau.—One of the largest and finest varieties. Fruit heart-shaped; skin yellow, with a red cheek; flesh firm and fine flavored—ripe in July.

Late White Heart.—Middle size; pleasant flavor; valuable as a late variety—ripe the last of August.

White Tartarian.—An elegant fruit; pale yellow, approaching to amber next the sun; fine flavor, and a good bearer—ripe in July.

PLUMS.

American Yellow Gage.—Oval shape, bright yellow color, equal to the green gage—ripe in August and September.

Bingham, *Bingham's Yellow Cling.*—A justly celebrated large, handsome variety; flesh rich and delicious—ripe in September.

Bleeker's Gage.—A new and valuable variety; skin dark yellow, with red spots—ripe in August.

Coe's Golden Drop.—One of the finest and handsomest plums in the country—ripe in September and October.

Columbia.—New seedling variety; light purple color; the tree a great bearer—ripe in August.

Downing's Emerald Drop.—Fruit handsome, of a green color; flesh firm and of delicious flavor.

German Prune.—Valuable for drying; skin red and purple; flesh yellow with a slight acid—ripe in September.

Goliath.—Fruit large, sometimes weighing four ounces; flesh pale yellow, firm, and good flavor; the tree a great bearer—ripe in August.

Green Gage.—Too well known to need description; one of the most desirable varieties known—ripe in August.

Huling's Superb.—Size large; skin greenish yellow; flesh sweet and excellent—ripe in August.

Lucomb's Nonesuch.—Very large, resembles the green gage—ripe in August, and a great bearer.

Nectarine Plum.—The fruit beautiful; skin varies from red to crimson; flesh yellowish, of a mild, pleasant flavor—ripe early in August.

October Gage, *Frost Gage.*—A valuable native fruit—ripe in October, when most plums are out of season.

Prince's Imperial Gage.—Fruit of the finest quality; skin yellow; flesh rich, and of excellent flavor—ripe in August.

Blue Magnum Bonum.—Size large; color blue; flesh firm and excellent for preserves; tree an abundant bearer—ripe in September.

Blue Gage, *Purple Gage.*—Medium size; skin purple, covered with a bloom; flesh rich and fine; tree a great bearer—ripe in August.

Bolmar's Washington.—Has weighed four ounces; color greenish yellow, with crimson specks; flesh yellow, firm, sweet, and delicious—ripe in September.

White Magnum Bonum, *White Mogul, White Holland, Egg Plum, Yellow Magnum Bonum.*—Fine size; skin yellow, covered with white bloom; flesh yellow, rich, firm, and excellent for cooking or preserving—ripe in September.

Red Magnum Bonum, *Red Imperial, Purple Egg.*—Size large; deep red color, covered with blue bloom; flesh harsh and acid; excellent for cooking and preserves—ripe in September.

Prince's Orange Egg.—A large beautiful orange-colored fruit; flavor rich—ripe in August.

SOUTHERN CALENDAR FOR APRIL.

At the beginning of this month attend to the planting of cotton as directed in March. Continue its culture as recommended by Dr. Philips in the American Agriculturist, Vol. II.

Plant upland rice in drills about eighteen inches apart, or sow broadcast, and harrow in the seed as is directed for lowland rice. Cover the ground two inches thick with old rice straw, in order to keep down grass and weeds, and to nourish the crop. Irrigation is unnecessary in the culture of this variety of rice. It will grow on poor sandy ridges, and also on wet lands. Continue sowing lowland rice.

Attend to the cane-fields, keep the earth loose and clear of weeds.

Occasionally stir the earth around the tobacco plants, both with the hand and the hoe. At first, *shave* the surface, and after the plants increase in size, gradually

draw a slight bed toward them. Closely examine the plants every night and morning, and destroy the numerous worms which feed upon them. First look for a small grub about the roots under ground, and afterward a large ugly worm which feeds upon the leaf. There is also a small worm which attacks the buds of the plant, and if not killed, will prove a sure destruction of its further growth. Another worm of a smaller size may be found within the two coats of the leaves, which feeds on the juices alone. All of this work can be done by boys and girls from ten to fourteen years of age.

Prepare your ground for sweet potatoes by ridging up rows about four feet apart. Set out your drawings similar to cabbages, eight or ten inches asunder in the ridges, as fast as they rise, and the season will permit. Some prefer large round hills four feet apart each way to drills. Hoe and plow your Irish potatoes and Indian corn. Sow cabbage, savory, and cauliflower seeds for next winter, but let them remain in the nursery-bed until August. Sow carrots and parsneps. Plant young orange-trees and water them until they take root.

You may now set out all kinds of evergreens successfully.

See Northern Calendar for June.

NORTHERN CALENDAR FOR APRIL.

This is the month when the general plans of the husbandman should be laid out for the coming season. His farm should be plotted, and each field assigned its crop for the year. What manure is left in the barnyard should be got out this month if possible. Plowing may be done on all light sandy or gravelly soil, as soon as the frost is out of the ground. But on all clay soils, their exact condition should be observed, and if not previously plowed in the fall, *as they always should be*, they must be turned over only when they are comparatively dry. Plowing when wet mixes the soil into a mortar, which subsequently bakes into large lumps, in which condition it remains through the summer, unless beaten in pieces at great trouble and expense. Deep plowing is too much overlooked. It should be the object of the farmer constantly to deepen his soil by cultivation, and in proportion as he enriches it, a small quantity of the subsoil should be brought up for improvement. By this means the roots of the plants will have greater resources for food, and before he is aware of it, his crops will be doubled by this system. The mowing fields should be put in order, by carrying off any surface water there may be upon them; and all the stones should be carefully collected and put into fences or used for making under drains, to convey the water from springs, or such as can not be otherwise carried away from stiff clay, or boggy lands. Spring wheat ought to be got into the ground early after the snow leaves it. Oats and barley may follow. Corn for soiling may be sown broadcast, or closely in drills. All early potatoes, and most of the early vegetables in the garden, may be planted. The garden should be particularly attended to. As much frequently may be raised on an acre of ground, for the support of the family in a garden, as from the best five acres of the farm. Plaster, with which any farmer who can use it to advantage ought to be well supplied, may be sown in this and the following month. *It is the cheapest manure he can apply*, in connexion with other manures, and it ought to be used liberally, wherever it is found beneficial. Field peas may now be sown, and if ground has a good exposure to the sun and is dry, some corn may be planted. The fences should be thoroughly staked up on every part of the farm, so as to prevent waste of time and crops from the inroads of unruly cattle.

Animals should not be suffered to get into the fields before a good bite is afforded them, and they should at all times, but especially when first allowed to run on grass, be well supplied with salt, to correct the frequently too purgative effects of the fresh feed. Look particularly after the young things, and do not allow them to follow their dams into the fields till the ground becomes dry, warm, and firm.

Sow hemp-seed the early part of this month where the climate will answer; for full particulars of its cultivation, see Vol. I. of the American Agriculturist. Sow tobacco-seed also, and the last part of the month plant castor beans.

Kitchen Garden.—During this month, early cucumbers, melons, cabbages, cauliflowers, lettuce, radishes, &c., which have been brought forward to the hot-bed, should be transplanted into the open ground. Attend to the asparagus bed, if not prepared before, according to the directions of last month. All kinds of table vegetables and early root crops sow in the open ground. Tomatoes, egg-plants, and peppers, that have been forwarded in pots, plant out the latter part of the month. Draw out the sweet potato sprouts and plant them.

Fruit Garden and Orchard.—All kinds of fruit and forest-trees, and shrubs, should be transplanted this month, before the leaf-buds shall have come out. All grafting and spring inoculating performed. Strawberry beds dressed and cleaned. Currants, raspberry, and gooseberries, that have not before received attention, can now be pruned; the latter should be pruned to open heads for the admission of sun and air, be well manured about the roots, and the soil made loose and mellow with the spade; the roots of peach trees be examined, and the worm cut out with a knife. Scions may be set the last of this month, and all the exposed wood should be carefully protected by wax. Several compositions may be used for this purpose, but perhaps as good a one as can be made consists of 3 parts of bees-wax, 3 parts rosin, and 1 part tallow, which is best secured by putting on bandages of new, strong cotton cloth.

Flower Garden and Pleasure Grounds.—Bulbs that have not yet started ought now to have the earth about them stirred, to the depth of three or four inches. The borders of the flower-garden be made up, and perennial herbaceous plants transplanted. Seeds of annuals should not be sown until next month. Hedges and shrubs may be trimmed, and box-edging set out. Put in order the gravel-walks and pleasure-grounds, and, if necessary, give the lawn a top-dressing of ashes. Deciduous trees should be transplanted this month if not done before, and shrubbery for the door-yards and gardens. Too little attention is paid to these last in our country. Many a farmer will spend $50 a year to procure ribands, gauzes, and artificial flowers, for his wife and daughters, when one fifth of the money would furnish him ornamental grounds throughout the year. Fruit-trees are ornamental as well as useful, and are perhaps the most profitable use to which he can put a few acres. The choicest kinds of every species should be selected, for it costs but little more to raise the best kinds than the poorest, and they frequently produce him five times as much in value. A large hole should be dug for the reception of the roots, which should be filled with loose mould, and when the tree has a large top, some branches should be lopped, and the extremities of the twigs cut off.

FOREIGN AGRICULTURAL NEWS.

By the arrival of the steamship Caledonia, we are in receipt of our European journals to the 5th March.

Markets.—*Ashes* are steady, but little doing in them, holders anticipating an advance. *Cotton*, especially of the low and middling grades, has fallen $\frac{1}{8}d.$ per lb., and a very moderate business has been done in it; the spinners confining themselves to purchases for their immediate wants, only, the past month. The import into Liverpool, since the 1st January last, has been 200,000 bales, against 207,000 at the same period last season. The stock on hand is estimated at 628,000 bales, against 444,000 same time last year; the stock of American is an increase of 175,000 bales. *Flour* and *Wheat* were rather more in demand, and at a slight advance of prices. *Beef*, *Pork*, and *Hams*, in good request, with an upward tendency; an extensive trade in these articles is anticipated. *Lard* is much depressed, and smaller shipments advised. *Cheese* of the finer sorts, a light stock, and many inquirers. *Oil-Cake* has a downward look. *Naval Stores* in fair demand. *Rice*, no change. *Tallow* and *Tobacco* more active, and larger sales than were anticipated at this season.

Money as abundant as usual, the bullion in the Bank of England still on the increase, being nearly £15,000,000 (about $72,000,000.)

American Stocks merely nominal, and little done in them the past month, except by speculators.

Business generally is increasingly active, and all branches of trade are well employed; there seems to be no doubt that the present will be a prosperous year.

The Annual Show of the Royal Agricultural Society of England, will be held at Southampton on the 24th, 25th, and 26th of July next.

Beef for the English Market.—Not a circular do we receive, that does not emphatically point out the necessity of packing beef for the English market cut from HEAVY, WELL-FED CATTLE of an IMPROVED BREED and as *nearly* as *possible* into 8 lb. pieces. Our stock-raisers would gain immensely if they would pay proper attention to these facts.

Increase of Stock of American Cotton.—By our late monthly cotton circular from Liverpool, we notice that the quantity of American cotton on hand, has increased 175,000 bales this year, over that of any previous corresponding season. This is a very important fact, and should be immediately made known to our planters; for if such an increase has taken place principally from the large crop of '42, notwithstanding the greatly diminished one of '43, the south should be careful to continue the system of supplying itself from its own resources, and put its *surplus* labor only into cotton and the other staple products usually exported.

Mr. Colman's Tour.—In a letter by the Caledonia, to his publisher in Boston, Mr. Arthur D. Phelps, Mr. Colman says, that an edition of his Agricultural Tour being desired in England, he put the MSS. for his first number into his publisher's hands there on the 1st Feb. last, but that he has greatly disappointed him, and kept putting it by for other work. He is now promised his first number on the 16th of March, when it will be immediately sent to Boston. Mr. Phelps writes us, if received at this time, it will be issued by him on the 6th of May. We quote the following from Mr. Colman's letter. "By the time my first number is out, my second will probably be ready for the press; and if my health is spared, I have confident hopes of getting *four* numbers out by the 1st of June. But I am sadly disappointed by my printer. I trust that my friends will wait patiently a few weeks longer, and they will then see that I have not been an idle traveller, or forgetful of their interests."

Proposed Agricultural Colleges.—The establishment of Agricultural Colleges and Example Farms in different districts of the kingdom is now engaging the attention of some of the leading agricultural bodies. It is proposed that in these colleges, or agricultural seminaries, young men intended for agricultural pursuits shall pursue a course of study combined with practical illustrations of the science and practice of agriculture, so as to fit them for obtaining situations in the service of landed proprietors as stewards, or for carrying out at home correct principles of husbandry and farming. It is intended that the in-door establishment shall consist of a head and second master, who shall instruct the pupils in the elements of education, together with land-surveying, the use of the water-level, the theodolite and chain, and everything applicable to agricultural pursuits. With a view of rendering them practical farmers, every pupil is to be made a plowman, and to be taught not only how to use the plow, but how to settle the irons for every soil, and all kinds of work. Their attention is also to be turned to stock of all descriptions, and to the making and repairing of fences. Lectures are to be delivered by head-farmers on the practice of agriculture, explaining the reasons for adopting any particular crop or rotation of crops; also, on the breeding, feeding, and proper management of stock, the drainage, reclamation, and improvement of land, and the invention and proper application of agricultural implements.

To make Ewes own their Lambs.—Sprinkle a little fine salt over the disowned lambs, this will usually attract the mothers, and when once the operation of licking has been performed there is seldom any danger of desertion.

Domestic Yeast.—Boil one lb. of good flour, $\frac{1}{4}$ lb. of brown sugar, and a little salt in two gallons of water for an hour. When milk-warm, bottle it and cork it close, and it will be fit for use in 24 hours.

Condensation of Carbonic Acid by Charcoal.—The cells of wood-charcoal have a diameter of about one twenty-four-hundredth of an inch, and if a cubic inch consisted entirely of cells, their united surface would amount to 100 square feet. By experiment it can be shown that the cells constitute five eighths of the whole cubic contents of the charcoal; and allowing for the space occupied by the charcoal, the actual surface of the cells will be about 73 square feet. When charcoal is plunged into carbonic-acid gas, it absorbs into its cells no less than 56 times their cubic contents at the ordinary temperature and pressure, and consequently the gas is condensed to 56 atmospheres. But according to the experiments of Addami, carbonic-acid liquefies under a pressure of 36.7 atmospheres, and we are hence compelled to conclude that above one third of the carbonic acid which is condensed on the walls of the cells is in the liquid state.

Value of different kinds of Wheat.—Sir G. S. Mackenzie states; that he found upon analyzing eight varieties of wheat, they yielded an amount of gluten varying from 10, 19, to 21 per cent. of gluten. Now the value of wheat flour depends mainly upon the amount of gluten contained in it; and yet, owing to purchasers not being able to detect this by the eye, that which has the least gluten in it, and is consequently least valuable, frequently brings the highest price. Analytical experiments by others have shown that the amount of gluten varied from 11 to 35 per cent. The wheat producing only 11 per cent. of gluten was manured with cow-dung, while that giving 35 per cent. was manured with human urine.

Editor's Table.

PENNSYLVANIA FARMER, 24 pages double columns octavo, monthly, price $1 a year, by J. H. Bryson, editor and proprietor, Lancaster, Pa. The first number of this work was issued in January, but in consequence of not getting a copy we could not sooner notice it. This new candidate for agricultural favor is neatly got up, and filled with valuable articles. We wish it success, and hope it may be the means of inducing the farmers in its vicinity and abroad to subscribe for it.

THE WESTERN CULTIVATOR, of the same form, number of pages, and price as the above, edited and published by W. Thompson Hatch, Indianapolis, Indiana, commenced in January last. We can only refer our readers to what we have said of the Pennsylvania Farmer for a good idea of this new colaborer in the cause of agriculture.

AN INTRODUCTORY LECTURE to the course of Chemistry and Pharmacy, in the Medical Department of St. Louis University; by A. Litton, M. D., Professor of Chemistry and Pharmacy. A capital good lecture, published in a neat octavo pamphlet of 23 pages.

THE SPIRIT OF THE TIMES.—This sterling paper commenced its 14th volume on the 2d of March, at *half* the price it has hitherto been published at, viz: $5 a year, and this without reducing its size, which is 12 pages large folio, weekly. The paper and embellishments are as handsome as ever, the typography as neat, and the variety, spirit, and ability of its contents equal, if not superior to anything that has gone before it. How the publisher can afford such a paper at *half its former price* we are at a loss to divine; however, that is *his* affair, not ours, and all the public has to do in the matter, is just to fork over plenty of its V's, and ask no questions; they will at least get their money's worth in fun, besides finding out all about horse-flesh, field-sports, and literature. Edited as usual, by Wm. T. Porter, and published by John Richards, No. 1 Barclay street, New York.

THE BRITISH AMERICAN CULTIVATOR, 16 pages quarto, monthly, price $1 a year; W. G. Edmunson editor and proprietor; Toronto, Canada West. We have often taken occasion to speak of this excellent agricultural paper. It is now in its third volume, and we find it replete with matter calculated to do great good among the farmers of the British Provinces. We understand its circulation has considerably increased of late, and we trust it may never lack that encouragement which it so richly deserves.

SPANISH PUBLICATIONS ON AGRICULTURE.—We are favored by our friend Don Antonio Freyre, with the first 18 numbers of El Fanal de Puerto Principe, and a pamphlet of 70 pages, octavo, of the Memorial de la Sociedad Patriotica, of the island of Cuba. Both of these publications abound with interesting articles on agriculture, and we are glad of the opportunity of their reception, to renew our acquaintance with the noble Spanish language, and learn something of the tropical system of farming. Cuba is making very rapid advances in the development of her great agricultural resources.

ADDRESS DELIVERED BEFORE THE HANCOCK PLANTERS' CLUB, GEORGIA, by Eli H. Baxter, Esq. We find the above admirable address in the Southern Cultivator, and we can only regret that we have not room to transfer it to our columns. It ought to be printed in a tract, and distributed throughout the state. We make a short extract for the benefit of state legislatures still in session. "Though all admit the great importance of this branch of the public interest, [meaning agriculture,] yet look to your own legislature and see how it is neglected and disregarded. You will find upon its journals, a long catalogue of standing committees upon various subjects connected with the public interest, yet you will find no standing committees upon agriculture. Long and elaborate reports are made upon the contemptible humbugs of the day, yet not a breath is spent upon this all-important interest."

ELEMENTS OF CHEMISTRY, Including the most Recent Discoveries and Applications of the Science to Medicine and Pharmacy, and to the Arts, by Robert Kane, M. D., &c., &c. An American edition, with additions and corrections, and arranged for the use of the Universities, Colleges, Academies, and Medical Schools, in the United States, by John William Draper, M. D., &c., &c., published by Harper & Brothers, 82 Cliff street: a large octavo, of upward of 700 pages, with numerous illustrations—price $2. This is acknowledged to be the very best elementary work upon chemistry extant; and as such, we earnestly recommend it to the attention of all who wish to make themselves acquainted with this highly necessary and popular science. It is handsomely got up on good paper, with clear type, and its perusal has given us great satisfaction.

The Agricultural and Mechanics' Association of the State of Louisiana, held its annual Show at Baton Rouge on the 8th of January. Judging from a detail of the proceedings in the Concordia Intelligencer, it was a spirited affair, and well attended. The address was by the Hon. T. H. McCaleb, and is highly spoken of. It rejoices us to see the spread of these societies at the south.

A great Butter Cow.—Col. Jaques stated at the sixth agricultural meeting in Boston, that the Oaks Cow, which he purchased of President Quincy, made 484 lbs. of butter during a single season. She was afterward ruined for milk by being fed too much Indian meal. On this she rapidly accumulated flesh, but almost entirely ceased giving milk.

Mr. C. N. Bement, landlord of the American Hotel, in State street, Albany. Mr. Bement writes us that he has taken this fine hotel and turned landlord again; but adds with decided *pertinacity*, that he is not by this movement going to give up farming—not he—but will be prepared to drive a bigger team than ever in this line. Well, we retain some pretty distinct recollections of Mr. B. in this same occupation, some six years ago, and we believe at the very same stand, and all is, if he keeps as good a house hereafter as he did then, (of which we can not doubt), we advise all our friends to place themselves under his care when they visit Albany—they will at least find themselves in the focus of everything in the agricultural line in that vicinity by so doing.

Charcoal and Guano.—Mr. Teschemacher, in Hovey's Horticultural Magazine says, that by mixing one fortieth part of charcoal with a compost made of two parts loam and one of old manure, and carefully and intimately mixing the whole, and then applying it to green-house plants in the pot, and watering with water in which guano had been mixed at the rate of one ounce to ten gallons, this treatment produced the most astonishing effects, not only in the growth, but general health of the plants.

Threshing-Machines.—We beg attention to Messrs L. Bostwick & Co.'s advertisement of Warren's Threshing-Machines. We have personally examined them, and owing to their great simplicity, strength, and cheapness, think them especially well calculated for the south. We shall be pleased to receive orders for the same, and indeed any other agricultural implements.

HINTS TO CORRESPONDENTS.—We should feel under great obligations to our correspondents when they address us to observe the following rules:—

1. Procure good pens and deep-colored ink, and then write in a clear plain hand—especially proper names, technical terms, unusual words, or those taken from foreign languages. If under the necessity of making many erasures and additions after the article is written, copy it.

2. Never use a capital letter in beginning a word which comes in the body of a sentence, unless it is known to be proper. Avoid joining words together in writing.

3. Never use a *dash* at the close of a sentence, but a *period*. Printers always follow "*copy*," and in revising a communication, we are obliged to go through the labor of erasing all improper points, and substituting the proper ones. If one has not been in the habit of reading "*proof*" from the press, he had better merely add the period at the end of each sentence, divide his communication into proper paragraphs, and leave the arrangement of minor matters to the judgment of the proof-reader, who is daily accustomed to the occupation, and will usually point the matter in hand more correctly than any one else, save professed scholars. He will also correct any misspelling, or errors in grammar.

4. Use the plainest and most simple words at command, and above all things, avoid the learned, or hackneyed phrases of "*modus operandi*," "make two spears of grass grow where one did before," "your valuable paper," "your invaluable paper," &c., &c.

5. Introduce as much practical matter into communications, as possible; and be full, clear, and concise, in relating facts.

6. When forwarding a good communication for this paper, you need not pay the postage; it is only when gentlemen address us upon their own business that we require the prepayment of letters. But as postage is a heavy bill to us, we hope our correspondents will, whenever possible, avail themselves of private conveyances, and of franking by postmasters, members of Congress, and officers of the government. So long as the franking privilege exists, it can not be better employed than in the cause of agriculture. Political documents are franked by the *ton*; may we not then ask the same privilege for a few pounds weight of those relating to agriculture. All letters addressed to us as *Editor*, and sent by Express, from courtesy to the profession, go free.

7. Always leave a place for the seal, otherwise a word or two important to the sense is lost, and an editor's ingenuity must be taxed to fill it up.

By following the above rules, correspondents will save us a great deal of trouble, and be much more certain of seeing their communications correctly printed.

Remittances.—We wish *invariably*, that our subscribers would remit through postmasters. If they enclose a dollar in a letter and pay single postage, the bill is detected in it by the office in this city, and then we are charged perhaps 25 cents more; and if the bill happen to be at discount, it makes it a losing business to send the paper for it. The aggregate of our losses in this way are very considerable, and we earnestly entreat all to make use of the franking privilege hereafter in their remittances, as the law allows.

TO MECHANICS—AGRICULTURAL IMPLEMENTS.—We are constantly in the receipt of orders for the purchase of different kinds of agricultural implements, and the venders of these will find it much to their interest to forward us cuts of the same, accompanied with brief descriptions, and stating their prices.

Credit Quotations.—We have been so frequently and so kindly noticed by the press in general, and find our brother editors such really *clever* fellows, both in the English and Yankee acceptation of the term, that it is with the greatest reluctance we ever call their attention to the slight omission of occasionally not giving credit when quoting from us.

"Wintering Sheep." The Mississippi Valley Farmer copies this from us into its February number without credit.

"New Method of Making Manure." The editor of the Raleigh N. C. Star makes the following cool observations: "We published the following some weeks ago, but having been called on by several friends for copies of the paper containing it, which we were unable to furnish, we concluded to republish it, and as the experiment can be made with little trouble or expense, we hope they will give it a fair trial and report the result for publication." It then copies the whole of the article which was published in our paper, page 164, Vol. II., by permission of the author, in advance, from the Farmers' Mine, without giving credit. This article is then copied into the Southern Cultivator, No. 4, Vol. II., crediting it to the Star.

"Superior Dutch Cheese." The Connecticut Farmers' Gazette sins in its March number by not giving us credit for this.

"Foreign Agricultural News." By way of parenthesis, we must say to our excellent friends of the Dollar Farmer, that those items copied into Feb. No., page 127, are not all taken literally by us from the Gardener's Chronicle, but mostly *condensed from pages of laborious reading*; we think, therefore, we ought to have credit for it. In addition to this, there are two little articles in the same number copied from us without credit; but when so much credit is given us in this paper we will say no more—'t is the printer's imp who makes all this mischief, so there is an end of our grumbling for this month.

Assembly Report of the Committee on Agriculture.—This report occupies only eight pages; but like everything else coming from Dr. Lee, the chairman of the committee on agriculture in the Assembly of New York, it is condensed and able. Dr. Lee has the faculty of saying a *great deal* in a *few words*, a quality which we wish was more cultivated by the politicians of our country. Buffalo may well be proud of its representative. We see that the Assembly has paid the committee the compliment of ordering *ten* times the usual number of these reports to be printed. Dr. Lee also introduced, some weeks since, a bill to establish an Agricultural College, but has not yet sent us a copy—we should be glad to receive one. We wish we had more room to notice his report; but a hundred things are already crowded out of this number of our paper which ought to have gone in.

A Second Edition of the American Agriculturist.—Although we struck off a large edition of the first three numbers of the present volume of this paper, they are already exhausted by our greatly-increased list of subscribers. We hope, therefore, those recently sending in their names will have patience, as we shall print a second edition of the back numbers in a few days, immediately after which those recently sending in their names will be supplied.

John Blount.—This celebrated horse has taken his stand for this season, at Mr. John Drew's stable, near the Union Course, Long Island. He is said to be an animal of great substance, and very compact and symmetrical. He was foaled March, 1837, and is by Marion, out of Maid of the Brook. He has been celebrated on the course, having once distanced Boston. His terms are $30 the season.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, MARCH 26, 1844.

ASHES, Pots,	per 100 lbs.	$4 56	to	$4 62
Pearls,	do.	5 06	"	5 12
BACON SIDES, Smoked,	per lb.	3½	"	4½
In pickle	do.	3	"	4
BALE ROPE	do.	6	"	9
BARK, Quercitron	per ton	22 00	"	23 00
BARLEY	per bush.	52	"	56
BEANS, White	do.	1 25	"	1 75
BEEF, Mess	per bbl.	5 88	"	7 00
Prime	do.	3 88	"	5 00
Smoked	per lb.	5½	"	7
Rounds, in pickle	do.	3	"	5
BEESWAX, Am. Yellow	do.	28	"	31
BOLT ROPE	do.	12	"	13
BRISTLES, American	do.	25	"	65
BUTTER, Table	do.	12	"	20
Shipping	do.	6	"	10
CANDLES, Mould, Tallow	do.	9	"	12
Sperm	do.	29	"	38
Stearic	do.	20	"	25
CHEESE	do.	4	"	7
CIDER BRANDY, Eastern	per gal.	35	"	40
Western	do.	28	"	35
CLOVER SEED	per lb.	9½	"	10½
COAL, Anthracite	2000 lbs.	5 00	"	5 50
Sidney and Pictou	per chal.	5 75	"	6 25
CORDAGE, American	per lb.	11	"	12
CORN, Northern	per bush.	48	"	50
Southern	do.	46	"	48
COTTON	per lb.	6½	"	11
COTTON BAGGING, Amer. hemp	per yard.	16	"	18
American Flax	do.	15	"	16
FEATHERS	per lb.	30	"	35
FLAX, American	do.	8	"	8½
FLAX SEED, rough	per 7 bush.	9 00	"	9 75
clean	do.	10 00	"	11 00
FLOUR, Northern and Western	per bbl.	4 75	"	5 00
Fancy	do.	5 25	"	5 50
Southern	per bbl.	4 75	"	5 00
Richmond City Mills	do.	6 00	"	6 25
Rye	do.	3 25	"	3 50
HAMS, Smoked	per lb.	5	"	10
Pickled	do.	4	"	7
HAY	per 100 lbs.	40	"	45
HIDES, Dry Southern	per lb.	9	"	11
HEMP, Russia, clean	per ton.	180 00	"	185 00
American, water-rotted	do.	140 00	"	180 00
do dew-rotted	do.	90 00	"	140 00
HOPS	per lb.	7	"	9
HORNS	per 100	1 25	"	5 00
LARD	per lb.	5½	"	7½
LEAD	do.	3½	"	4
Sheet and bar	do.	4	"	4½
MEAL, Corn	per bbl.	2 12	"	2 68
Corn	per hhd.	12 00	"	12 50
MOLASSES, New Orleans	per gal.	30	"	32
MUSTARD, American	per lb.	16	"	31
OATS, Northern	per bush.	32	"	34
Southern	do.	28	"	30
OIL, Linseed, American	per gal.	83	"	87
Castor	do.	90	"	95
Lard	do.	60	"	65
OIL CAKE	per 100 lbs.	1 00	"	— —
PEAS, Field	per bush.	1 25	"	— —
PITCH	per bbl.	1 12½	"	1 37
PLASTER OF PARIS	per ton.	2 00	"	2 25
Ground, in bbls	per cwt.	50	"	— —
PORK, Mess	per bbl.	8 75	"	10 00
Prime	do.	7 00	"	8 00
RICE	per 100 lbs.	2 37	"	3 00
ROSIN	per bbl.	60	"	85
RYE	per bush.	65	"	68
SALT	per sack	1 35	"	1 50
SHOULDERS, Smoked	per lb.	4	"	6
Pickled	do.	3	"	4
SPIRITS TURPENTINE, Southern	per gal.	34	"	35
SUGAR, New Orleans	per lb.	5	"	8
SUMAC, American	per ton	25 00	"	27 50
TALLOW	per lb.	6	"	7½
TAR	per bbl.	1 25	"	1 50
TIMOTHY SEED	per 7 bush.	13 00	"	15 50
TOBACCO	per lb.	3	"	6½
TURPENTINE	per bbl.	2 25	"	2 62
WHEAT, Western	per bush.	1 00	"	1 07
Southern	do.	90	"	1 00
WHISKEY, American	per gal.	23	"	25
WOOL, Saxony	per lb.	35	"	50
Merino	do.	35	"	40
Half-blood	do.	25	"	30
Common	3do.	20	"	25

New York Cattle Market—March 25.

At market, 1000 Beef Cattle, (700 from the south,) 110 Cows and Calves, and 570 Sheep and Lambs.

PRICES.—*Beef Cattle* dull, and prices obtained with difficulty. We quote $4.50 *a* $5.25, to $5.50, *a* $6, with a few extra at $6.25 *a* $6.50—300 unsold.

Cows and Calves.—All sold at $12 *a* $26.

Sheep.—The market cleared at $2 *a* $5, as in quality.

Hay.—Supply large at 62½ *a* 68 cts. per cwt. loose.

REMARKS.—*Ashes* are in steady demand for exportation. *Cotton* has fallen about ¼ cent per lb. since the arrival of the Caledonia. Export from the United States since 1st September last, 520,050 bales; same time last year, 1,143,619; same time year before, 748,421. *Flour* and *Meal* are firm, and a limited stock on hand. *Grain* of all kinds the same. *Hay* a large stock on hand, and dull sales. *Hemp* in good demand. *Molasses* and *Sugar*, the same. *Naval Stores*, in fair request. *Beef* and *Pork* of the better qualities, brisk—the receipts are large. *Rice*, dull. *Seeds*, especially clover, active and firm. *Tobacco*, dull. *Wool*, quiet. In other articles the change is so trifling, that they call for no particular remark.

Money is 4 to 5 per cent. on good paper; on bond and mortgage in the city 5 to 6 per cent., out of it, 7 per cent. It is now more in demand.

Stocks have fluctuated some the past month, owing to the supposed treaty with Texas; they are at present on the rise.

Real Estate, we notice increased sales at improved prices; a good deal of building is now going on in the city and its vicinity.

Business generally is very active, and opens unusually early.

The weather has been uncommonly fine and warm during March, and the season very forward. We fear there may be a change in April for the worse.

TO CORRESPONDENTS.—Communications the past month have been received from Leonard D. Clift, E. Carpenter, Alexander McDonald, Jno. M. C. Valk, T. C. Peters, A. Buckeye, J. H. Lyman, Henry Chorley, A Northern Farmer, Samuel F. Christion, and Henry O'Reilly, Secretary of the New York State Agricultural Society, to whom we tender our thanks, for his polite invitation to be present at the executive committee meetings. Both Mr. O'R. and the society may think themselves slighted by our not yet publishing his communications, and the list of premiums, &c.; but the delay has been unavoidable. We go so early in the month to press, that we did not receive these in time for Feb. No., and our March and April columns were then bespoke for articles, which to have delayed, would have placed them out of season. We shall insert the State Society List, &c., in our next, and all other communications that we possibly can, without entrenching on other departments of the paper, which to ensure interest and variety to our periodical, we must not give up. We hope our correspondents will be patient, they shall see themselves in print in due course. To make room for these we have again thrown out several editorials which ought to have had place ere this.

A. B. will be answered by an article on White Beans in our next. It was written for this number but crowded out.

W. T. We have been unable to procure the Silver Fir seed yet, notwithstanding the repeated promises of two seedsmen that we should not be disappointed this year.

ACKNOWLEDGMENTS.—To John A. Grimes of Harrodsburg, Ky., and Samuel F. Christion of Holley Springs, Miss., for beautiful samples of Saxony and Merino wool, showing that this staple article can be grown to great perfection both in the south and southwest.

PRINCE'S LINNÆAN GARDEN AND NURSERIES.

The new Descriptive Catalogues of this establishment, comprising above 1000 varieties found in no other collection in America, and at very reduced prices, will be sent gratis to every *post paid* applicant, or may be obtained at 23 Pine street, New York. All orders are executed with despatch and in a superior style, and we guaranty the satisfaction of purchasers.

WM. R. PRINCE & CO.

Flushing, March 18th, 1844. *2t

ANALYSIS OF SOILS.

The subscriber having been called upon by the Farmers' Club of the city of New York to undertake the analysis of soils for agricultural purposes, has engaged to do so on the following terms:—

For the solution of simple questions, as to the presence or absence of lime, common salt, or gypsum in the soil, $2.

For the determination of the presence of bone, earth, potash, and the more difficult questions, $5.

Specimens of surface-soil, weighing 4 lbs., should be sent to the office of the American Agriculturist for the subscriber, a letter being forwarded at the same time to Dr. Gardner, 683 Broadway, with a remittance. Charges upon both must be paid.

D. P. GARDNER, M. D.

New York, April, 1844.

PREMIUM EAGLE PLOWS.

MANUFACTURED BY

RUGGLES, NOURSE, & MASON,

And for sale at the Manufactory in Worcester, and at their AGRICULTURAL WAREHOUSE and SEED STORE, Quincy Hall, Boston.

A full investigation and trial of plows was had in October, 1843, (occupying several days,) by an able committee of the Essex Agricultural Society, when 17 plows were presented. The committee in their report say, "in testing the quality of a plow, the *power* by which it is moved, the *ease* with which it is handled, and the *manner* in which it completes the work, are *prominent* points for consideration;" and in speaking of the Eagle Plow, to which they unanimously awarded the highest premium, they say, "As near as we can ascertain, this plow combines all the good qualities manifested in either of the others, with some peculiar to itself;" and "further, our attention was particularly called to the *quality* of the castings on the plows of Ruggles & Co., their *finish* and *durability*." "Their appearance certainly is more perfect than anything we have elsewhere seen." "The process of *chilling* the *points*, the entire *edge* of the *share*, and *flange* or *base* of the *landside*, give a permanence and durability to the work that render it of a decidedly superior character." "And we think there is no hazard in saying the value of the parts thus made, is more than doubled by the process."

At the Plowing-Matches held in Massachusetts the same year, forty-three premiums were awarded to plowmen using plows made by R., N., & M., twelve of which were the highest premiums awarded in the counties of Essex, Middlesex, Worcester, Plymouth, and Bristol.

SUBSOIL PLOWS.

Among their great variety of kinds and sizes of plows, they have several sizes of SUBSOIL PLOWS, made in form like a genuine sub-soil plow *imported* by *them* from Scotland. They have been thoroughly tested, with great satisfaction, as the increasing demand from all sections of the country testifies. The New York State Agricultural Society in September, 1843, awarded their first premium to the subsoil plow made by R., N., & M., (*entered by Benj. F. Smith of Syracuse.*) Prices, $6, $8, $10, $12, and $15.

Also, a variety of plows particularly adapted to the culture of Cotton, Rice, Tobacco, &c., in the southern states, equal in style and quality to those used in this section of the country.

At their Warehouse may be found the most extensive and complete assortment of AGRICULTURAL and HORTICULTURAL IMPLEMENTS to be found in the United States, embracing every tool used in the cultivation of the farm and garden. Also, a large and well-selected assortment of Field, Grass, Garden, and FLOWER SEEDS, all of which are offered at wholesale or retail, at prices which can not fail to suit the purchaser.

The Editor of this paper will take orders for the above plows.

SULPHATE OF SODA.

A maker of Sulphate of Soda has requested me to offer the article, fine-ground, at about one cent per pound. Any farmer, desirous of trying the article, can obtain a supply by calling at 34 Cliff street, N. Y. Extracts from Professor Johnston's work on Chemical Manures, as to the value of this sulphate, will appear in May number of the American Agriculturist.

2t WM. PARTRIDGE.

WOBURN HOGS.

For sale, a few of the celebrated Woburn or Bedford breed of Hogs, comfortably caged and delivered in New York at the following prices, viz: One Boar eleven months old, $25; three Boars, five months old, $17 each; four Sows five months old, $15 each; a few pair of spring Pigs, $25, delivered 1st of June next. Address the subscriber at New Haven, Ct. WM. K. TOWNSEND.

March 19th, 1844. 2t

LIME FOR SALE CHEAP.

The subscriber will take orders for delivering lime in any quantity, on board vessel, just above Stoney Point, on the Hudson River, at 3 cents per bushel. Samples, and an analysis of it by an eminent geologist, can be seen by calling at his office. One great object in putting the price so low, is to introduce the use of it as a manure more extensively among our farmers.

OYSTER-SHELL LIME.

Will be furnished in this city at the kilns, at 4 cents a bushel.

PLASTER OF PARIS

Ground, and put up in barrels of 350 lbs. each, at $1,25 per barrel. This is an excellent fertilizer, easily transported, and well worthy the attention of Southern Planters. All orders should be post paid and accompanied with the money.

A. B. ALLEN, 205 Broadway, N. Y.

COMMERCIAL GARDEN AND NURSERY OF PARSONS & CO.

FLUSHING, NEAR NEW YORK.

Descriptive Catalogues of all the Trees, Shrubs, and Plants cultivated at this establishment, are recently from the press, in a new and improved form, and can be obtained gratis by application to the proprietors by mail, *post paid*, of Parsons, Lawrence, & Co., 129 Pearl street, New York, and the editor of the American Agr.

THE FRUIT DEPARTMENT comprises all the finest varieties of Apples, Pears, Cherries, Plums, Peaches, Nectarines, Apricots, Grapes, Figs, Quinces, Mulberries, Persimmons, Papaws, Medlars, Walnuts, Currants, Raspberries, Strawberries, Gooseberries, Barberries, Cranberries, Esculent Roots, &c., of superior size and quality, and will be furnished by the quantity at reduced prices.

THE ORNAMENTAL DEPARTMENT includes the different varieties of Maple, Ash, Horse-chestnut, Poplars, Oaks, Lindens, Elms, Beech, Magnolias, Mountain-Ash, Pines, Firs, and a large collection of all the known hardy deciduous and evergreen trees, among which are the Chinese Ailanthus, Silver-leaved Abêle, European Larch, Tulip Tree, Pride of India, Judas Tree, White Fringe Tree, Flowering-Ash, Chinese Koelruteria, Venetian Sumac, Balsam Fir, White Spruce, Arbor Vitæ, &c.; 10,000 Norway Spruce of small size will be furnished at reduced prices.

It also includes a large collection of Ornamental and Flowering Shrubs, Vines, Creepers, Honeysuckles, Azaleas, Pæonies, Hyacinths, Crocus, and other bulbs, with a numerous list of Herbaceous Plants and Roses. Their importations of the past season comprise many new kinds of Shrubs, and Hardy and China Roses, and some new varieties of the Tree Pæony never before introduced to this country. The Tree Roses are very thrifty, and include the finest varieties. They have not yet tested the hardiness of the Paulovnia Imperialis and Cedrus Deodara, but hope soon to be able to recommend both these beautiful trees for general cultivation. A great advantage possessed by the Trees cultivated at Flushing, is their peculiar hardihood. From the fact that the Nurseries are freely exposed to all the winds from the ocean on the one side, and Long Island Sound on the other, accompanied by the advantage of being sufficiently far north to acclimate the trees to any section of the country, they acquire a degree of hardihood which renders them eligible for removal to colder latitudes, and enables them to support the rigors of even a Canadian Winter. Trees thus hardened by nature, are found not only to endure with safety the climate of those parts of New England where the winters are uniformly severe, but also to succeed well in the more temperate climates of the south.

Orders sent to the proprietors by mail, or left at 129 Pearl street, New York, will receive prompt attention.

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